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Design and development of three matrix models of administrative structures of international education in land-grant universities

Johnson Ajide Afolayan
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DESIGN AND DEVELOPMENT OF THREE MATRIX MODELS OF
ADMINISTRATIVE STRUCTURES OF INTERNATIONAL EDUCATION IN LAND-
GRANT UNIVERSITIES

Iowa State University

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Design and development of three matrix models of
administrative structures of international education
in land-grant universities

by

Johnson Ajide Afolayan

A Dissertation Submitted to the
Graduate Faculty in Partial Fulfillment of the
Requirements for the Degree of
DOCTOR OF PHILOSOPHY

Department: Professional Studies in Education
Major: Education (Higher Education)

Approved:

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1986

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ABSTRACT

The purpose of the study was to investigate the mission of teaching, research and service in the matrix organizational structure of international education in six selected land-grant universities. The study included a synthesis of the historical academic activities of international education, the applicable theory of organizational structure and the characteristics of the university organization as a matrix perspective of the principles and practice of international education in the United States.

The universities selected for this study have designated administrators responsible for coordinating international education. They have visible international offices with defined responsibilities in their structure. These universities were Oregon State, Washington State, Oklahoma State, Michigan State, University of Idaho and University of Nebraska. They were representative of the identified criteria; however, they did not constitute a representative sample of international education structure as private and parochial colleges were not sampled.

The study analyzed the original documentation provided through the institutional mission or other supplied documents. A matrix instrument was developed for collecting the research data. This instrument was comprised of three university missions, ten elements for each of the domains, and four hundred fifty-eight taxonomies of international education.

The matrix models developed were centralized, decentralized and coalition administrative structures of international education. The matrix centralized, coalition and decentralized models provide choices and alternatives to institutional administrators which can be accomplished in part during the evolutionary stages of their international development. The research exercise went through an analytical matrix study of six land-grant universities which helped to quantify and identify the wide array of elements, taxonomies and activities carried out in those universities. The exercise was the act of introducing the researcher to international education through matrix model and structural construction in the field of higher education.

CHAPTER I.

INTRODUCTION

International education has been defined by several scholars and educators. According to David Scanlon, "International education is a term used to describe the various types of educational and cultural relations among nations" (Scanlon, 1965).

Another meaning of international education was provided by Dr. William Wolansky who defined it as "the process by which people acquire a global perspective to explain events in relation to the increasing interdependence of nations and cultures" (Wolansky, 1984).

In its most general sense, international education has been used to refer to the totality of ways in which educational institutions, ideas or practices of society or cultural groups have influenced those of another. The role of international education in our modern world has been clearly documented in the Universal Declaration of Human Rights adopted unanimously by the United Nations on December 10, 1948. The right to education was defined in the United Nations article 26 as:

Education shall be directed to the full development of the human personality and to the strengthening of respect for human rights and fundamental freedoms. It shall promote understanding tolerance and friendship among all nations, racial and religious groups and shall further

the activities of the United Nations
for the maintenance of peace
(Bill of Rights, 1978 p. 8).

The impact of various forms of Western education upon the rest of the world from the Seventeenth Century to the Twentieth Century is one of the notable formative influences in the development of a worldwide modern civilization. Educational history is the cumulative account of the civilization which does not die. The entire history of education is replete with the interchange of educational ideas, and the borrowing, emulation and adaptation of educational practices (Brubacher and Wills, 1976).

As the chairman of the Task Force on International Education said in advising Congress:

International education has different meanings for different people. To some it means young Americans studying abroad, to others it means exchange professors, to still others it means welcoming students from abroad.... To some, international education means the efforts of one nation to help build the educational institutions of another country, to others it means study, research and teaching (Task Force, 1966).

The educational impacts of the Italian Renaissance, stimulated by visits from scholars and teachers who came from Byzantium, were in turn carried to northern Europe by Italian, German, French and English humanists in the fifteenth and sixteenth centuries. The discovery of the ancient societies of Africa, Asia and North and South America were contingent to the transplanting of educational institutions to those areas. Portuguese and Spaniards carried their mission schools to the Americas, to Asia and to Pacific Islands. The English, French and Dutch carried their schools to America and eventually to Africa and Asia.

American educational history exemplifies these interactions. Let it suffice to observe that it was grounded on the remains of the Greco-Roman heritage, and more immediately on the culture of medieval Christendom which had been shaken by the upheaval of the Renaissance and the Reformation.

Since the end of World War II, the policy of United States in world affairs has led to federal government involvement in international programs. Today, there is hardly a department of the United States government that is not involved in some form of international education. President Harry Truman in his inaugural address stated:

I believe that we should make
available to peace-loving peoples
the benefits of our store of
technical knowledge in order to
help them realize their aspirations
for a better life, and, in co-

operation with other nations, we should foster capital investment in areas needing development.

Our aim should be to help the free peoples of the world, through their own efforts to produce more food, more clothing, more materials, more housing and more mechanical power to enlighten their business (Scanlon, 1965, p. 144).

The President's statement agrees with the Justin Morrill Act of 1862 which pressed through Congress the funding of land grant colleges which, as service institutions, were "to teach agriculture and mechanic arts." The American experience is indeed an analogue of the kind of nation-building now proceeding in Africa, Asia the Middle East and Latin America. The two bases of national strength are still agriculture and industrialization, both needing mechanization in the modern modes (Kenneth, 1970).

As a university discipline, international education is comparatively young, having made its entry into higher education in the decade after World War I as part of the optimistic efforts to develop a science of international relations. The institute of International Education was established in 1919, and four years later, the International Institute of Teacher's College, Columbia University, was founded with the aid of a grant from the General Education Board. The Carnegie Foundation, the Doris Duke Foundation, the Rockefeller

Foundation and the W. K. Kellogg Foundation were among the private organizations that assisted the cause of international education.

Today, international education is still struggling for identity amongst the mission of research, teaching, and service of the universities. Many presidents and top level administrators have committed their efforts to the success of their international programs. Dr. Parks, the President of Iowa State University, in 1965 described international education as "new humanism," and his Vice-President for Academic Affairs, Dr. George Christensen, labeled the international activities as "the priority of the future" (Profiles of Iowa State History, 1966; The Professional Schools, 1967).

The dichotomy of objectives, values and priorities that dictates the structure and allocation of resources needs to be examined closely within a realistic university curriculum. It will be recalled that international education was not handed over as a university academic discipline from the founding fathers of Harvard University in 1636. The development of international education in the United States, therefore, has received several dimensions, organizations and structures that are now being creatively addressed on a need basis. Nationalism, colonialism and an array of attitudinal differences retarded the acceleration of international education for a long time. In fact, waves of catalytic events stimulated the current progress. These, to name a few, are (1) World Wars, (2) need for peace, (3) nuclear technology, (4) shrinking resources, (5) the creation of United Nations Organization (UNO), (6) political interdependence, (7) foreign trade and economic policy, (8) media technology, (9) space technology, (10) influx of

foreign scholars. As a result of these factors, learned professions now pay attention to the perceived "golden fleece" in international education.

Within the existing system of organization and governance, international education is groping for academic potency in the midst of the institutional services. A theoretical world view has for centuries been part of academic tradition. Studies of foreign cultures, and languages, the law of development and change and the web of human interdependence have received little attention in the structure of higher education. It is easier to be theoretically impeccable than operationally persuasive. The international educator must be prepared to find himself involved in a foreign culture as adviser, teacher or administrator facing conditions and governmental decisions which require him to work at some given point on the development curve.

Administrators and professors within the structures of the universities cherish their academic freedom and independence from governmental directions and control. However, they obsessively find themselves as agencies of policies and purposes attached to the funding of overseas activities.

In his message to the Congress, President Johnson declared that "ideas, not armaments will shape our lasting prospects for peace." He proposed the passage of the international education act of 1966 by proclaiming that "the conduct of our foreign policy will advance no faster than the curriculum of our classroom" (Task Force, 1966, p. 17).

Therefore, the study of the organizational structure of the international programs becomes a need. A careful analysis of the

structure will reveal its roles and effects and the right direction to take in achieving the optimum benefits for the international constituency that the program serves.

Kenneth Boulding in 1985, observed that the critical question of international education is whether we can develop an image of the world system which is at the same time realistic and also not too threatening to the folk cultures within which the school systems (of the world) are embedded.

President Truman made a statement that it was the responsibility of the more industrially advanced nations to share their knowledge with the less developed societies. He declared:

We must embark on a bold new program for making the benefits of our scientific advances and industrial progress available for the improvement and growth of underdeveloped areas. More than half of the people of the world are living in conditions approaching misery. Their food is inadequate. They are victims of disease. Their poverty is a handicap and a threat both to them and to more prosperous areas

(Scanlon, 1965, p. 143).

Educated persons are seen as having a commitment toward alleviating the human condition of ignorance, ill health, poverty and denied

opportunity. Upon these premises international education has emerged. International education must help man to become an integrated whole in a fragmented world. Civilization is rapidly moving to a period of mankind's destiny where the innate sense of human sympathy must be brought to consciousness. International education is the totality of caring beyond the national boundaries. It's the act of knowing and synthesizing the emerging concepts which can help solve the problems of mankind.

In one of its publications in 1953, the United Nations noted that:

Mankind's collective, conscience, however,
has been aroused to work toward creating
a happier world for all. As modern science
and technology have drawn the different
points of the globe more closely together,
making them more interdependent, a
far-reaching change in outlook upon world
social problems has been taking place
(Pooling Skills, 1953, p. 1).

The spirit of international education is a great hope of the posterity and human civilization. "Indeed it has been suggested that the twentieth century will be chiefly remembered in the future centuries not as an age of political conflicts or technical inventions, but as an age in which human society dared to think of the welfare of the whole human race as a practical objective" (Polling Skills, 1953, p. 2).

Statement of the Problem

The purpose of this study was to investigate and analyze the mission of teaching, research and service in the matrix organizational structure of international education in six selected land-grant universities. The study included a synthesis of the historical academic activities of international education, the applicable theory of organizational structure of the characteristics of the university organization as a matrix perspective of the principles and practice of international education in the United States.

Objectives of the Study

1. To examine the relationship between the predictors (teaching, research and service) and the criteria (classification scheme) for the matrix organizational structure of international education.
2. To review and apply the organizational research method of matrix and deductive reasoning which can be associated with the causal-comparative research method in education for conducting the study.
3. To devise, interpret and follow the procedure of the study through the matrix system of phases and processes.
4. To utilize the terms "classification schemes, elements, components and structural variables" in the systematic identification of the independent variables (predictors) and the dependent variables (criteria) in the sequence of phases and processes in the study.
5. To develop premises from observable phenomena in the study and use them as bases for creating matrix models of international education structures, namely centralized, decentralized and coalition.

6. To draw logical conclusions from the study and compare them with the observable phenomena identified initially.
7. To recommend future research studies on the matrix organizational structure of international education in universities.

Research Hypotheses

1. The Teaching Elements Taxonomy (TET) group mean percentage amongst ten elements (below and above) will differ across the six selected land-grant universities.
 2. The Research Elements Taxonomy (RET) group mean percentage amongst ten elements (below and above) will differ across the six selected land-grant universities.
 3. The Service Elements Taxonomy (SET) group mean percentage amongst ten elements (below and above) will differ across the six selected land-grant universities.
 4. The TET threshold percentage (lower and higher) will be different across the six selected land-grant universities.
 5. The RET threshold percentage (lower and higher) will be different across the selected land-grant universities.
 6. The SET threshold percentage (lower and higher) will be different across the six selected land-grant universities.
 7. The domain mean threshold percentage (lower and higher) will be different across the ten elements in each of the six selected land-grant universities (see page 57.)
 8. The international threshold percentage (lower and higher) will be different across the six selected land-grant universities (see page 58.)
-

Justification of the Study

The decision to study the matrix organizational structure of international education emanated from the fact that the field has not been popularly singled out for investigation by the scholars of higher education. Therefore, administrators and faculty members can be frustrated with problems that obstruct international commitment (Backman, 1984).

Research into the matrix organizational structure of international education will enhance the importance of the discipline as a professional field. It will provide needed information and knowledge on the practice of international education in a university organization. The conclusion to be drawn from the study will ultimately increase the development of theories in the matrix organizational structure of international education.

The outcome of the research will facilitate the design of matrix administrative models of international education structure. The matrix organizational structure of international education in American land-grant universities can not be studied parochially. The current organizational structure needs to be analyzed and compared before acceptable matrix administrative models can be designed.

Significance of the Problem

International education has been an integral part of elementary, high school and university curriculum for the past four decades. The migration of the foreign students into the United States and their enrollment at American universities are beyond ordinary occurrence.

(The enrollment statistics are reported on page 21 of Chapter II of this study.) The educational acts and provisions toward international education have embraced the needs of scholars and researchers represented within the university organization (Task Force, 1966).

Even though there have been various studies through the teaching of academic subjects like history, geography, sociology, anthropology and religions, international education has been principally involved in area of overseas service since the second world war. Its administrative structure was designed to monitor the financial and immigration requirements of the students studying in United States and those scholars interested in overseas studies.

The organizational structure of the university has not specified a leadership role consistent with the proposed matrix international education including the three missions of teaching, research and service. This is needed in order to understand the collegial, political and bureaucratic pattern of the university international system of matrix organization.

Operational Definitions

1. Structure: The basic schema or sets of ideas that are used to organize and interpret the world experience and which the community of scholars has refined and articulated through traditions of research and criticism into conceptual structures (Brunner, 1960). Conceptual structure exhibits logical framework, evolution of interdependence methods of inquiry, assessment of evidence and central concepts.

2. **Organization:** Organizations, as Weber (1947) defines them, are social groups closed to outsiders or open to them only in accordance with specific rules and governed by a leader or administrative staff.
 3. **Organizational chart:** A graphical means of showing the structure of relationships, responsibilities and authorities through which the objectives are achieved.
 4. **Faculty:** The entire staff of professional teachers and research scholars at an institution of higher education.
 5. **Director:** The individual responsible for directing and controlling the activities of an organization.
 6. **Matrix organization:** It is an organizational approach that combines the departmentalization by function and product in an educational system.
 7. **Matrix administrative model:** It is used to denote the design of administrative structure that combines the departments by function and product in an educational system.
 8. **Matrix:** "That within which or from which something originates, takes form or develops" (Webster's New World Dictionary, 1976, page 875).
 9. **Domain:** It is used to denote the functional educational area of curriculum.
 10. **International curriculum:** It is used to refer to the university's responsibilities of teaching, learning and administering about the mutual complexity of the interdependent world.
-

CHAPTER II.

REVIEW OF THE LITERATURE

The purpose of this review of literature is to synthesize the historical activities of international education, the applicable theory of organizational structure and the characteristics of the university organization in order to reflect the matrix perspective of the principles and practices of international education in the United States.

Part A. International Education

Historical overview

Historically, educators have been involved in the process of maintaining world peace through international education. After World War I, the main effort to internalize the curriculum of schools was increasingly devoted to eliminating the warlike outlooks in the textbooks in many countries. The extremely nationalistic school books had been castigated as inflammatory propaganda in part responsible for promoting World War I.

In the 1920s and 1930s, teachers' organizations and prominent educators in France, Germany, Great Britain, Japan and the United States tried to reform textbooks in the direction of greater international understanding. In the United States, the effort to change attitudes in the schools toward greater internationalism gained considerable headway in the 1940s and early 1950s, especially among progressive educators.

The Soviet Union's success in space with Sputnik 1 in 1957 stimulated the United States Congress to pass the National Defense Education Act of 1958. This act increased prestige and substantial financial support of the federal government to the pioneering efforts of the Carnegie Corporation, the Ford Foundation, and the Rockefeller Foundation in the field of international studies (Leestma, 1969).

Prior to World War II, relatively few international studies experts were in the United States universities. Returned missionaries, journalists and foreign service officers and their offsprings provided a type of network of international studies specialist (McCaughey, 1980). The end of World War II generated an explosion of interest in all facets of international education. The establishment of the United Nations and its specialized agencies, most notably the United Nations Educational, Scientific and Cultural Organization (UNESCO), the Food and Agriculture Organization (FAO), the World Health Organization (WHO), the World Bank and others marked the threshold of a new era of foreign relations for the United States. The new era spawned a host of new federal agencies and programs; among them are the International Cooperation Administration, Agency for International Development and the Bureau of International Organization of the Department of State. These new agencies were established in response to the post-war period. The Peace Corps, established in 1961, provided an opportunity for Americans of all ages to learn about the lives of others through international service. Congressman Adam Powell, then chairman of the House Committee on Education and Labor, suggested that the 1966 act was to support "international education"--education to function effectively in a

multicultural universe "through federal programs to enable our schools and universities to carry forward the essential training and research in international studies" (Task Force, 1966, p. xii). These events were the dynamos through which international education received its vital energy.

The role of American universities

By using the international programs as the unit of analysis, an overall picture can be presented of the involvement of United States colleges and universities in international education. In a study on international programs in higher education, Burn (1980) points out that "when international activities and programs are centrally coordinated, they reinforce each other and become more central to the institution in terms of both structure and priority" (p. 143):

Comprehensive international studies centers frequently have responsibility for coordinating area studies programs, international exchanges, foreign students, technical assistance, projects abroad, faculty research in international studies, outreach programs and transnational interinstitutional relationships (Owen, 1977).

During 1967-68, 522 colleges and universities in the United States reported a total of 2,185 international programs. A more recent inventory compiled by the Federal Interagency Committee on Education lists some 181 international education programs of at least 28 federal agencies (Wiprud, 1980). The development of these programs reflects the awareness of educators, government and foundation officials, students and concerned civic leaders of the importance of international programs in the total spectrum of education.

Most of those who criticize American colleges and universities for their failure to expose as many students as possible to international studies have suggested methods to rectify this situation. Such methods include changes in the curriculum and course content, introduction of language and area studies or comparative and topical studies, development of programs of study abroad and encouragement of extracurricular activities with international overtones.

These imply that a student's education cannot be considered complete if it fails to expose him to both the Western and non-Western worlds. Curricular revisions are an important part of current changes in the academic world. The interdisciplinary, program-oriented approach to learning has given programs of international studies an opportunity to demonstrate the relevance of their subject matter to students. This technique involves the addition of more cross-cultural and international dimensions to existing courses and makes use of examples and case studies from other societies. Michigan State University, for example, requires all students to take a basic non-Western course in order to qualify for graduation (Harclerod and Kilmartin 1966).

In some cases, new courses on international topics grow out of student initiative. Team teaching is occasionally used to present students with the combined competence of two or more professors on international subjects. Because new courses often reach very few students, the infusion of an international dimension into regular courses is perhaps the only realistic answer to the problem of reaching as many students as possible. The infusion method, however, is dependent upon the department's willingness to adopt it, the personal

disposition of faculty members, the position of the university administration, student concerns and the availability of financial backing (Backman, 1984). Innovation and constant revision of methods can be very rewarding to the commitment toward international education.

Major trends

The growth of language and area studies programs since World War II represents a significant development in higher education. An area studies program may be defined as a formal program of interdisciplinary study concentrating on a foreign area or country.

According to Roberts (1964) some universities have formed cooperative consortia in order to implement language and area studies programs at a lesser expense to the institutions involved. The New York State education department has been experimenting with a program of self-instruction in non-Western languages for institutions which lack the faculty resources to develop their own programs. Students use autolingual materials, are tutored by native speakers and are tested orally each week in language laboratories and at the end of the semester by a visiting language expert.

Other observers have suggested that the disciplines can bring tools of analysis for the formulation of a conceptual scheme necessary to area studies. They believed that integration of knowledge about an area can be achieved by bringing diverse disciplinary approaches to bear on an area problem and allowing the student to integrate information for himself (Bigelow and Legsters, 1964). Lack of research opportunities in area studies programs has been severely criticized by faculty members. The various concerns for multi-cultural and multi-ethnic studies have

drawn models similar to those prevalent in the international area studies programs and to earlier interests in education for international understanding.

Technical assistance

Several scholars (Gardner, 1963, Humphrey, 1967, Sutton, 1979) hypothesized that the major development of technical assistance activities in the decades following World War II triggered interest within the United States in all aspects of international education. The leadership in scholarly international studies exercised by returned foreign correspondents, missionaries and foreign-service officers and their children was rapidly challenged by faculty members who returned to campus after service in a technical assistance project. The sixties was a period of great ferment in higher education institutions which were considering ways of using technical cooperation programs to strengthen academic and scholarly interests at home (Morrill, 1960).

Comparative education

Comparative and development education are synthetic fields that draw upon the various disciplines and professions relevant to the study of educational phenomena. In fact, literature of the field is often found in professional journals rather than in educational journals.

Schultz (1963) noted the significant research trends in comparative and development education as they affect some degree of international and bilateral policies in educational development around the world. Harbison and Meyers (1964) espoused education as investment rather than consumption and that the assistance community began to place high priority on educational development in other countries.

A 1968 report of the Agency for International Development (AID) assessed a broad range of projects undertaken abroad by land-grant universities in the fifties and sixties and suggested ways of improving and expanding the programs. Adiseshiah (1979) and Mackinnon (1979) reviewed the history of international interventions in the field of education and suggested that we have moved from aid to cooperation. Sutton (1979) examined the problems of maintaining effective world-wide relationships between universities, and Dawson (1978) examined problems of rural development in less developed countries and ways of organizing a foreign aid program.

In a less direct way, the World Bank had collaborated with the United States and foreign institutions by borrowing faculty for policy study and project planning and evaluation activities. The bank also operates an Economic Development Institute in Washington, D. C., which includes small numbers of government officials from abroad in educational as well as other types of planning (World Bank, 1975).

Cultural exchange

The movement of people beyond their own borders for structural educational and cultural experiences has continued to accelerate since World War II. The network of institutions and organizations involved in such activities is vast. It includes inter-governmental agencies, U. S. government agencies, academic and scholarly organizations, private voluntary organizations, professional exchange organizations, and trained international wings of various professional organizations in specialized fields. The range of such programs is outlined in a publication of the U. S. Department of State (Task Force, 1966).

Foreign students

The trend of increasing numbers of foreign students coming to the United States is well noted. In 1954, there were 19,124 undergraduate and 12,110 graduate students and projections suggest that there will be about 408,000 undergraduates and 166,000 graduate students by 1990 (National Center for Educational Statistics, 1980, Winkler and Agrawal, 1980).

Foreign student enrollment has significant implications for U. S. foreign policy since many of these students return to their home countries to become leaders (Angells, 1979, Coombs, 1964, Elder, 1961, Jacobson, 1979). There are also implications for the curriculum and programs of American colleges and universities and for the communities that host foreign students (Burn, 1978, Jenkins, 1977, National Liaison Committee on Foreign Student Admissions, 1971).

Furthermore, literally hundreds of studies have explored what happens to foreign students while they are abroad from the point of view of both academic achievement and adaptation and coping (Coebo and Ahmed 1980). A review of over 450 studies on foreign students in the United States illustrates the diversity of such research (Spaulding and Flack, 1976).

Policy and administrative recommendations generated by such studies seem to be ignored. Few universities attempt to adjust curriculum to the needs of foreign students, many of whom are from developing countries with man-power and technological problems substantially different from those of the United States. Although many colleges and universities have well-developed foreign student offices, these

typically deal with financial and housing problems and take a position of monitoring the student status and immigration policy that protect United States interests (Adamek and Lavin, 1975). An evaluation of these activities may be adversely perceived, sometimes, by the foreign students.

Larger research studies have been done on the migration of high-level talent—the so called brain-drain that is, those students who do not return home (Bhavati, 1975, Meyers, 1972). In this area, the research literature is contradictory, with a number of studies suggesting that, even from an economic point of view, such migration is good for the sending country because such migrants might be underemployed at home and they contribute to the home economy in terms of funds repatriated from abroad. Other studies have revealed the increasing encouragement of medical students to return home to provide the needed services.

Government interest in attracting students from abroad has declined steadily over the years, perhaps, in part because foreign students arriving continues to increase despite diminishing U. S. government support. The number of foreign students aided under the Fulbright-Hayes Act has declined from 1853 in 1966 to 1166 in 1978. Financial aid for foreign students under AID programs has declined from 6827 grants in 1964 to 902 in 1979 (see Open Doors, 1982).

With over 250,000 foreign students in U. S. each year in the late seventies, it is obvious that the majority are either self-supporting or are supported by scholarships from their own governments or from international organizations such as the United Nations specialized

agencies. The economic impact of these students on local communities and universities has been studied (see *Open Doors*, 1982).

If one estimates that each student spends at least \$10,000 a year on tuition and living expenses in the United States one can infer that those bring some 2.5 billion a year into the U. S. economy. These studies should include both the concern for effects on university budgets and an examination of the impact of total funds imported into the local community by the foreign students (see *Open Doors*, 1982).

Global education

Anderson (1979) has presented a scholarly study of the meaning of global education. He defines global education as "efforts to bring about changes in the content, in the methods, and in the social context of education in order to better prepare students for citizenship in a global age" (p. 15). Anderson's definition implies that students who are currently enrolled in the nation's schools are becoming citizens within the context of a global era in human history. He argues that citizens in a global age have not been traditionally emphasized by schools and that certain changes must take place in the educational process if schools are to become more effective agents of citizen education in a global age.

The impetus for global education came from a major study on goals, needs and priorities in international education at the elementary and secondary level founded in 1966 by the U. S. Office of Education. The report of the study team called for a new definition of international education and emphasized the need to prepare children and youth to live in an interdependent global society (Becker, 1969).

In 1969 Leestma, then Associate Commissioner for Institutional Development and International Education, U.S. Office of Education, outlined the five underlying concerns of the global perspective of education: unity and diversity of mankind; international human rights; global interdependence; intergenerational responsibility; and citation of international cooperation. These five major themes should permeate all global curricular.

In addition more interdisciplinary and interprofessional research needs have been raised. The promise and the challenge is that international education will continue to be viewed as the core channel for making the interdependent nature of the world relevant within the field of higher education.

Summary

The age of plenty will not dawn suddenly upon all human beings around the world, its achievement will depend upon comprehensive reform through the international education. Human beings are educable. Under normal circumstances, people can learn what is needed and what is interesting to them. Innovation and constant revision can be very rewarding to the commitment toward international education.

Government interest in attracting and supporting students from abroad has declined steadily over the years. American education is actively involved in most educational programs and organizations on the international level today. International education has the task of teaching awareness of and concern for international relations and commitment to the generations to come.

No one who is aware of the changing society and contemporary world scene needs to be reminded of the need for concepts, understandings, skills, loyalties and values that can challenge the course of international education.

Part B. Theory of Organizational Structure

Organizational structure

Roberts and Galloway (1985) described structure as things that include job titles, descriptions, objectives, job contracts, departmental divisions, work units and employee job expectations. He further explained that structure includes decision making systems, information trees, work evaluations and financial control. This implies that the structure of the organization determines the activities and personnel responsibilities that lead to effective outputs.

Weick (1969) provided justifications for the structure across departmental communications. He argued that linkages occurs on an individual basis. This also adds to the differentiations in the university organizations. Other reasons provided for having structure include unreliable feedback, consensus decisions and research capabilities. This indicates that individualism is reinforced because linking which is supposedly done by administrative contacts becomes links between individuals rather than between administrative units. The idea differs from other industrial organizations where coordination is a specific responsibility assigned to specific units.

According to Perrow (1967), mechanisms for coordination or information processing vary because they are adapted to meet the needs of the organization. Thompson (1967) noted that organization structures are created to ease the decision-making tasks of individuals. According to Thompson, structural information tells the employer what to do, whose command to follow and whom to inform about the outcome of activities. These views were consistently supported by Lawrence and Lorch (1967) who indicated that structural information assures that someone is available to perform the task required and that a proper information environment is existing for decision-making. Roberts and Galloway (1985) concluded that structural characteristics are clearly recorded in a prescriptive manner reflecting the image of authority (p. 150). It implies that organization is a collection of people working within a structure. Roberts states that "structure is authoritative but not necessarily, powerful or representationally accurate."

Structure and power

In the current development, organizational theories have advanced power as an important discussion with structure. Conrad (1983) presented structure as power with authority and responsibility. They argued that power sometimes is separated as discrete variable that members of an organization strive for and a matter of concern to them.

Preffer (1977) pointed out that the design of an organization implies structural strategies employed by individuals and coalitions in the organization to control, maximize or minimize structural effects. In short, power has been treated as the unseen force that regulates information shows, and thereby attempts to influence goals and resources

within the organizational structure.

Structure as a means of control has been indicated by the structural theorists. Braverman (1965) and Edwards (1978) portrayed structural power as attempts to manipulate other organizational members against their interest. Katz (1968) argued that structure can increase control by rewarding workers with autonomy, room to act freely, set up comfortable group cultures, work on technically intering projects or wield organizational power in exchange for compliance and for loyalty and long tenure with increasing salaries and eventual promotions.

According to McPhee (1983), a highly decentralized organization occurs when the matters requiring decisions are turbulent or complex at a high-level; managers are too far removed from the action to make informed decisions. McPhee here defined the domain of organizational communication studies. He believed that structure is purposefully organized for its ends. This means organizational structures separate and delimit the bonds of sub units. It also creates the means for their integrative coordination while determining the subcomponents of the system. The system theories serve both as a basis for integration of literature and an analytical instrument that stimulates new organizational features (Parsons, 1937).

Blau and Scott (1962) argued that organizations need coordination, regularity and discipline. These include centrality, planning, problem-solving, communication, professional orientations and individual initiatives that are stifled by structure. They concluded that any effective organization has to undergo a sort of dialectic change

pendulating between innovation and conflict but which can systematically learn and improve through experience. Here, it implies that structure can be dysfunctional while serving as a necessary contributory factor to organizational development.

Resources and power in organizations

Mulford (1984) clearly explained how the potential power in an organization is equivalent to the possession of scarce resources. Resources according to Mulford are always used as power to obtain compliance of others in organizations. Power here is intimately related to dependence. Organizations, according to Aldrich (1979), like to avoid becoming dependent on others and seek to make others depend on them. According to Mulford, the critical variable in dependence is whether the focal organization has access to the resources from additional sources or not. Therefore, the capability of an organization to generate resources on a continuous basis determines its potential existence.

According to Reid, scarcity of resources and lack of similar goals can lead to conflict (Reid, 1964). The finding of Akinbode and Clark (1976) indicted that exchanges form the foundation of domain consensus, scarcity and partial interdependence. They concluded that conflict can be a function of dissimilar goal, lack of consensus and ideological differences.

Resources as a function of power have been specified by Mulford in four ways: (1) lack of reciprocal resources, (2) lack of alternative supplies (3) lack of coercive opportunity to impose compliance on the resource holder and (4) indispensability of the scarce resource. Aiken

and Hage (1968) pointed out that organizations that are more formal will develop exchange relationships through resources, but organizations that differ in formalization may be less likely to engage in exchanges. This implies that the staff involved may find it difficult to relate to each other and conflict may result instead of cooperation.

Organizational relationships

Increased concern for relationships between organizations has been shown by researchers and scholars of organization theories. These relate to existing relationships between organizations and their wider community.

In his comprehensive study of interorganization relationships, Mulford found out that organizations influence each other because of interdependence. Mulford (1984) pointed out that changes in the environment call for new relationships and decisions by organizational leaders in adopting new management strategies in their structure (p. 14). These, Mulford explained, have attracted the interests of interorganizational research because it aids the development of an alternative mode of community structure.

Mulford discussed the purpose of an organization as a "frame of reference through which members can relate to their activity and their environment" (p. 5). Bertrand (1972, p. 155) indicated that boundaries of subsystems within the community must determine which groups or organizations interact more frequently in the fulfillment of their daily needs. These imply that compatible organizational properties such as structure, size and philosophy predict the likelihood of relationships between them. It also means that because organization follows a se-

quential and cumulative pattern, therefore, historical data of working relationships lead to participation in just ventures. It was found out by Mulford that organizations with more activities and output are likely to engage in cooperation with other voluntary organizations (Mulford, Warren, Klonglan, Lawson and Morrow, 1977).

Aiken and Hage's (1968) study of 16 welfare programs found that organizations with more joint programs tend to be more complex and innovative with more internal communication and a more decentralized decision-making structure. The studies by Paulson indicate that linkages with other organizations may have an impact on the organization's effectiveness (Paulson, 1974). This suggests that the strength and level of linkages are very important to resource mobilization in organizations (Aveni, 1978). Mulford (1984) explains that organization may exchange resources with not one but several organizations each of which is involved in a network of interdependence. The function of interdependence, according to Mulford, accounts for uncertainty in decision-making because they may lead to the necessity for increased coordination and mutual control over each other's activities. The implication of interdependence on relationships is that organizations have input and output roles designated for acquisition of resources and distribution of services and products. Thompson (1962) describes this as the boundary-spanning roles that link organization members and non-members in their interaction. This fact about transactional structure helps to explain the relationship between organizations and the level of compulsory participation exerted by members or non-members.

Environment

Environment was defined by Hall as the general specific influences on the organization structure. He included technological, economic, demographic and cultural conditions in the general description of environment (Hall, 1977). Environment has become an increasingly important variable in the analysis of organizational structure (Parsons, 1956). The notion of environment has been viewed as a primary determinant of the organizational structure and process (Cook, 1977). The determination of the end and beginning of the environment in an organization poses a phenomenon of conceptualized difficulty associated with the definition of environment (Miles, Snow, and Preffer, 1974; Starbuck, 1976; Hall, 1977). In generic terms, environment refers to all influences on the organization perceived externally in relation to it (Hall, 1977; Zey-Ferrell, 1979).

According to Aldrich (1979), environment does have both characteristics of needed resources and flow of information. The concept of it as resource correlates with dependence while the concept of information relates to getting information about external systems through decision-making and perception. These observations suggest that environment is a multidimensional concept. Greater specification of its conceptual domain is needed in order to clarify its concept in organizational analysis.

Organizational environments consist of individuals, groups and organizations that provide resources for outputs and become recipients of organizational outputs (Pennings and Goodman, 1977). Specifically, the resources conception of environment is often employed within

theoretical perspectives which hypothesize that organizations are not to maintain themselves, and therefore, must enter into relations with elements in the environment that can supply necessary resources. This conceptual notion of environment portrays the organizational structure as active and capable of changing the environment as well as adapting to it (Aldrich and Pfeffer, 1976). Aldrich (1979) observed that the dominant coalition in an organization is able to manipulate the situation in order to influence the manner in which the environment is perceived by members.

Contingency theorists use the analytical method and concepts of change, complexity and competition to examine conditions in the general environment. For example, Child (1975) and Pennings (1975) both studied the influence of change and complexity in technological and economic conditions while Dubick (1978) examined the impact of economic competition on organization change represents a dimension which may vary along a continuum from stability to instability. Child in (1972) and (1975) indicated that three aspects of change have been studied: (1) the frequency (rate) of changes in environmental activities, (2) the degree of difference (amount) involved at each change and (3) the degree of irregularity in the overall pattern of change. Stable rates occur in situations where the set of critical factors remain constant. Unstable rates take place when a situation is loose and erratic and both the value of important variables and the kinds of relevant variables are changing unpredictably (Jurkovic, 1974).

McCrimmon and Taylor (1976) suggested that large size and abstractness of relevant factors are components of environmental

complexity dimension. Complexity represents the homogeneity--heterogeneity dimension of environment. It is an indication of the extent to which closely interconnected factors and activities outside the organization are relevant to its planning and operation (Thompson, 1967; Child, 1972, 1975).

Information about the environment is used by the organizational decision-makers as one basis for modifying or maintaining organizational processes and the uncertainty of information reaching decision-makers. Generally speaking, the environment denoted by the information perspective is a subjective one. It is the environment as perceived and reacted to by an individual (Downey, Hellriegel and Slocum 1975). Dimensions of the subjective environment that are most often studied include perceived environmental uncertainty, perceived changes perceived complexity and perceived competition.

The concept of environmental uncertainty is a central concept used by contingency theorists to capture the environment's effects on organizational functioning (Downey, Hellriegel and Slocum, 1975). The concept of uncertainty first emerged from the work of pioneer contingency theorists who viewed the environment as an object of reality. Lack of theoretical definitions of uncertainty resulted in different interpretations of the conceptions of the theorists (Starbuck, 1976).

Thompson (1967) observed that both technologies and environments are major sources of uncertainty in organizations. The combined definitions of perceived environmental uncertainty are summarized into three dimensions (1) lack of adequate information, (2) inability to predict

environmental factors in the event of lack of clarity information and (3) inability to predict the effects of environmental elements or organizational decision and action outcomes.

Other dimensions of the subjective environment include perceived change, complexity and competition. These dimensions are suggested by the contention that individual organizational members differ in their perceptions of the environment (Duncan, 1972).

Characteristics of organizational members

The concepts which describe the characteristics of the organizational members are important contingency theory concepts. This is because that subjective environment represents the perception and reaction of the members. The importance of both the organizational members and personal and membership characteristics have been discussed by Downey and Slocum (1975) and Downey, Hellriegel, and Slocum (1977). These discussions covered (1) individual's tolerance for ambiguity, (2) cognitive process and (3) the variety of managerial experience.

According to Hall (1977) organizational members' perceptions are influenced by their position within the organization. Membership characteristics of decision-makers are particularly important because decision-maker's positions require many boundary spanning activities.

Boundary spanning refers to diverse kinds of interaction between subsystems within organizations or interorganizational interaction directed toward the goal to be attained by the focal organization. There are formal and informal boundary activities: formal include scheduled meetings, staff conferences, etc., while informal include discussions, and telephone conversations. The five identified classes

of boundary activities are (1) transacting the acquisition of inputs and the disposal of outputs, (2) filtering inputs and outputs, (3) searching for and collecting information and intelligence, (4) representing the organization to external organizations, and (5) protecting the organization's integrity and territory (Leifer, 1977).

Structural dimensions

Interorganizational dimensions define the coordination and control structure and functions that all organizations exercise (Zey-Ferrell, 1979). There is lack of consensus regarding the dimensions which comprise the domain of organizational structure as a multidimensional concept. However, structural dimensions which constitute the focus of contingency literature have been identified; they include differentiation, complexity, centralization, formalization and communication patterns (Hall, 1977; Dewar and Hage, 1978).

Complexity

According to Champion (1975) and Johnson (1967), complexity is comprised of four multidimensional components including general division of labor, horizontal and vertical differentiation and spatial dispersion. Hage and Aiken (1966) argued that complexity encompasses at least three subdivisions: (1) the number of occupational specialties, (2) the professional activity, and (3) the professional training of organizational members. Price (1968) viewed complexity as an multidimensional concept pertaining to the degree of education of its members or the level of knowledge required to produce the output of a system.

Centralization

In a centralized organization, most decision-making occurs at the top of the organizational hierarchy. A high degree of centralization also exists if personnel at the lower organizational levels make decisions that are programmed by organizational policies. Also, if the evaluations are carried out by people at the top of the organization, the organization is centralized regardless of the level at which decisions are made (Hall, 1977). The right to make a decision is an important aspect of centralization.

Formalization

The definition provided by Pugh and Associates (1968) has received global consensus. It states that formalization includes statements of procedures, rules, roles and operational procedures which deal with decision-making, conveyance of decisions and instructions, such as in plans, minutes, requisitions and of feedback. Generally, it refers to the extent to which there are written rules, procedures, instructions and communication.

Communication patterns

The design of organizational structures is constructed to handle information systems. Its existence denotes that communications are supposed to follow a particular pattern (Hall, 1977). Champion (1975) defines communication systems as networks which are designed to transit information to and from all positions within organizations. They consist of vertical and horizontal components. Vertical communications involved both downward and upward flows. In reference to downward communications, five elements of this subdivision were identified (1)

job instruction, (2) the rationale for tasks and their relationships to the rest of the organization, (3) information regarding organizational procedures and practices, (4) feedback, and (5) ideology. Upward communications essentially involve what position occupants say about themselves, their performance, and their problems, about others and their problems, their performance, and their problems, about organizational practices and policies, and about what needs to be done and how it can be done. Horizontal communications occur both within and between subwrite (Hall, 1977).

Organizational effectiveness

The concept of organizational effectiveness is itself abstract and multifaceted. This makes the task of defining effectiveness an extremely difficult one (Zey-Ferrell, 1979). According to Ghorpade (1970), research on organizational effectiveness has been influenced largely by the rational and the social system models of organizational analysis.

Pennings and Goodman (1977) noted that, internationally, the organization consists of a set of interest groups or constituencies by whom effectiveness is defined. It is clear that there is non-universally accepted set of organizational effectiveness criteria. Therefore, the criteria the researcher chooses to emphasize should reflect the purpose guiding the inquiry (Ghorpade, 1970; Scott, 1977).

Scott (1977) suggests a number of presumed criteria of effectiveness for various groups of organizational constituents. He argued that different perspectives are represented within the organization by administrators and rank-and-file participants. In

Scott's view, administrators emphasize organizational features and participant characteristics presumed to influence organizational effectiveness. Administrators are especially concerned with resource adequacy including the facilities, equipment, administrative support structure, fiscal arrangements and qualification of the staff. The organization is effective or functioning adequately when there are sufficient resources, efficient operations and attainment of optimum goals. Collectively these criteria constitute the organizational perspective of administrators.

Contingency model of effectiveness

The contingency theory of organizational effectiveness was discussed by Mulford. He indicated that the internal structure needed for effectiveness depends on the nature of the organization. Burns and Stalker (1961) identified mechanistic and organic organizations. The mechanistic one has task differentiation, centralization and vertical communication with low professionalism. They have closed inflexible structure.

The organic on the other hand, has flexible and open structure. Burns and Stalker explained that mechanistic organizations are most appropriate for stable and predictable organizational environments. Organic organizations are more effective under the conditions of environmental change. Mechanistic structures are most effective under environmental stability. Empirical studies of the impact of environmental dimensions on effectiveness are not common (Mulford, 1984). Mulford concluded that environment presents constraints and contingencies for decision-makers. Compared to their mechanistic

counterparts, organic characteristics were flexible and adaptive.

Burns and Stalker observed that mechanistic structural characteristics appeared to be appropriate for firms operating in relatively stable, predictable environments. Under highly predictable environmental conditions, it was possible to routinize tasks and procedures, to formalize rules, to centralize decision-making and to have primarily downward vertical communication. However, these conditions produced uncertainty in decision-makers' ability to predict environmental demands. Therefore, because of their adoptive nature, organic systems were more appropriate under the latter environmental conditions.

From all perspectives' organizations which have predominantly mechanistic structural properties are organizations in which administrator's attempt to achieve coordination and control primarily through Hierarchical arrangements. Written rules, procedures and regulations direct the behavior of organizational members. Information flows up through channels, and decisions and instructions flow downward.

Organizations with predominantly by organic structures also have certain distinctive characteristics. Professionalization or complexity becomes especially important because it is assumed that individuals will be able to perform their tasks on the basis of their knowledge of the entire organization. Professionalization, rather than formalization, regulates organizational members' behavior. Hierarchical arrangements are minimized; even communication between people of different ranks takes the form of lateral consultation rather than vertical command.

Domain consensus and interdependence

Domain consensus has been defined by Price (1972) as "the existence of congruent expectations regarding mutual roles and responsibilities between the elements of an organizational dyad." In addition, organizational domains are often viewed as boundaries that define environmental relations between organizations. The domain is usually measured in terms of the population served, the method or technology employed and the services rendered by an organization (Meyers, 1972). The organizational domain has implication especially for organizations that make decisions based in part upon their expectations about what another organization will or will not do in response to their actions (Levine and White, 1961). Thus, domain consensus is partly an outcome of the pattern of interaction that emerges.

Interdependence

Interdependence is used to represent the functional integration of interorganizational networks and exchanged relations like the elements of a system in common or interrelated activities. Aiken and Hage (1968) argue that joint programming is the most binding form of interdependence among organizations. Hage (1969) maintained that creating interdependence among organizations is a productive means for increasing the effectiveness of interorganizational service delivery systems. Functional integration theory suggests that organizations producing different outputs will possess complementary resource needs and capabilities, leading to stronger ties of interdependence.

Comparative properties

Comparative properties are similar along various dimensions or attributes. Organizations with similar characteristics or attributes may more readily achieve consensus over domains. Functional integration is premised on basic differences among the elements of a system. A direct implication of functional integration is that organizations possess certain differences that are likely to develop interdependence on the basis of their complementarity (Marret, 1971). Complementarity here refers to productive differences among elements. One important area of comparison for organizations is their domain.

Similarity

Similarity is the degree to which elements resemble or bare likenesses to one another. Similarity initially produces association among elements and the potential for exchanges to occur. According to Durkheim (1933), similarity is what makes elements initially aware and familiar with each other. The ecological perspective incorporates the notion of similarities in explaining interdependence. Guetzkow (1966) noted that little research has employed the concepts of human ecology for understanding the mutual relations of organizations and their environments. These have implications for the comparative analysis of the international structure of educational programs.

Summary

The structure of the organization determines the activities and personnel responsibilities that lead to effective outputs. Structural information tells employers what to do, whose command to follow and whom to inform about the outcome of activities. Organization is a

collection of people working within a structure.

Organizational structure separates and delimits the bonds of subunits. It also creates the means for their integrative coordination while determining the subcomponents of the system. Structure can be dysfunctional while serving as a necessary contributing factor to organizational development. Resources are a functional influence of power. Organizations may exchange resources with not one but several organizations each of which is involved in a network of interdependence.

Organizational environments consist of individuals, groups and organizations that provide resources for outputs and become recipients of outputs. Information about environment is used by the organizational decision-makers for modifying processes and uncertainty about the organization.

Part C. University Organization

Theoretical writings about college organization, to a large extent, rely on industrial or behavioral psychology (Peterson, 1974). The insightful analyses of university policy are very descriptive. The pragmatic meaning of organization in a university can be described as the aggregate analysis of behavioral tasks into structural roles and concomitant responsibilities (Bess, 1982). The transformation and complexities of the modern organized models have been attracting many contingencies. Also, the organizational research confirms the behavioral variables in the contemporary university paradigms.

Introduction of organizational theories into higher education has not been fully acknowledged to a practical level. Theoretical

speculations, also, have not been aggressively pursued in the field of higher education (James Bess, 1984). This is because practicality of social science research is not stimulating the needs of the academic administrators who consider organizational theories as inappropriate for meeting the accreditation requirements (Bess, 1984, p. 3).

Moreover, the inadequate supply of researchers with training in organizational behavior within the discipline of higher education increased the problem. The same reason accounts for a scarcity of scholars committed to a nexus of communication in the field. This implies that if researchers in the area of university organization can make regular contributions to applicable theories, they may become more popular with the decision-makers.

The nature of freedom, tenure and professionalism in the academic departments reflects the uniqueness associated with the universities. The ambivalent relationship between the academic and administrative decision-making process reinforced the restraint of the scholarly researchers in penetrating those domains (Bess, 1984). Bess noted that the static feature of the research effort in university organizations was due to lack of motivational variables for scholars of higher education.

Administrative process

The common functions of the administrative process are planning, organizing, directing, staffing, coordinating, reviewing and budgeting. In this regard, university administration is like that of other organization.

The literature on academic administration has tended to concentrate on universities as closed rather than open systems (Keeton, 1971). The important point to note is the stress put on the environment as a determinant of organizational behavior. The literature on university administration as a process stresses a great degree of ambiguity in decision-making. The prevailing administrative environment is one of ambiguity rather than certainty (March and Olsen, 1976).

One of the basic ambiguities is the question of the extent to which universities are similar to or different from other organizations. Their structure is hierarchical and tied together by formal chains of command and systems of communication. Personnel are appointed to office and are paid salaries as a rational form of compensation for their services, and competency is the basis of promotion. Others put more emphasis on the collegial authority of the faculty (Anderson, 1963).

Metaphors

The metaphor of administration assumes that the university has well-defined objectives specified by some formal group--ideally the board of regents or trustees. The democratic model pictures the university as a community consisting of students, faculty, alumni, citizens and foreign scholars. The distribution of formal participation is the underlying power question. The anarchy or garbage can metaphor stresses that each individual in the organization makes autonomous decisions. The faculty decide if, when and what to teach. The students decide if, when and what to learn.

In the anarchy model, there is a constituency without explicit leadership; in the independent judiciary model, there is leadership

without an explicit constituency. The implication of these metaphorical processes is unique to the structure of international education. It is the structure that needs to recognize the political, the collegial and the bureaucratic process of a university system.

Characteristics of university organization

Universities are complex organizations. They have goals hierarchical systems and structures, officials that carry out specified duties, and all the other characteristics of complex organizations (Balbridge, Curtis, Eiker and Riley 1978). Again, universities are client-serving institutions like hospitals, welfare agencies or public school systems.

Another great distinction is the high professionalism that dominates the academic task. The problematic technology demands a highly professional staff with their human international variables. Professionals tend to demand work autonomy and freedom from supervision. They tend to have divided loyalties between their professions and the organizations that employ them.

They experience the tension between their professional values and bureaucratic expectations. They demand peer evaluation of their performance rather than an administrative evaluator. The expertise of the faculty does not give room for unity. The value structure emphasizes the shared authority, interdependent parties and importance of the expertise in curriculum planning and personnel management. All these predominant academic values in the university organization have been characterized as academic ideology (Lunsford, 1970). The autonomy and accountability of the university system should be viewed and

understood in the 1971 statement of the Carnegie Commission on Higher Education that stated:

Under no circumstances can institutional independence be considered absolute. Not even its strongest advocates can seriously question the legitimacy of requiring some degree of public accountability from educational institutions receiving public support....The techniques used to achieve public accountability of educational institutions must be balanced against the need of educational institutions for that degree of institutional independence which is essential for their continued vitality (p. 104).

Summary

University organization is the aggregate analysis of behavioral tasks into structured roles and concomitant responsibilities. The ambivalent relationship between the academic and the administrative decision-making process reinforced the limitation of researchers in the university organization domain.

The university structure is hierarchical and tied together by formal chains of commands and systems of communication. The metaphorical processes is unique to the structure of international education. The structure needs to recognize the political, the

collegial and bureaucratic process of a university system.

Universities are complex organizations. The problematic technology of a university demands a highly professional staff with their international variables. The value structure in a university emphasized the shared authority, interdependent parties and importance of the expertise in curriculum planning and personnel management. These, in a collective term, are called academic ideology.

Based on the extensive review of literature, research evidence would support that there can be derived benefits from creating an organizational pattern which gives appropriate consideration to the following variables:

1. Historical setting and mission
2. Structure
3. Environment
4. Resources
5. Relationships
6. Communication
7. Complexity
8. Centralization
9. Domain consensus
10. Effectiveness
11. Interdependence
12. Ambiguity and task role
13. Professional preparation
14. Boundary span

The matrix including the 14 structural variables of international education would permit faculty through the university organization to become involved in work they find most rewarding. The structure suggests critical variables in international education that need to be organized to suit the faculty and staff as well as the public they serve. (See Figure 1, page 50.)

CHAPTER III.

METHODOLOGY

General Description of Methods

The intent of studying the existing structure of international education in the land-grant universities was to analyze and relate the university's mission of research, teaching and service (independent variables or predictors) with the structural practice of international education—"classification schemes" (dependent variables or criteria). Educational research scholars (Borg and Gall 1983; Isaac and Michael, 1984) and organizational researchers and practitioners (Bowditch and Buono, 1985) have utilized both educational and organizational research efforts to enhance their understanding of organizational behaviors, interactions and practices. (See Figures 1, 2 and 3 on pages 50, 56 and 60.)

Within the context of increasing knowledge and practice, the matrix and deductive reasoning approach were used in this study. The technique of deductive reasoning can be associated with the causal-comparative research method used in education. Isaac and Michael (1984) described the causal-comparative research thus:

Causal-comparative research is "ex-post facto" in nature, which means the data are collected after all the events of interest have occurred. The investigator then takes one or more effects (dependent variables) and examines the data by going back through time, seeking out causes,

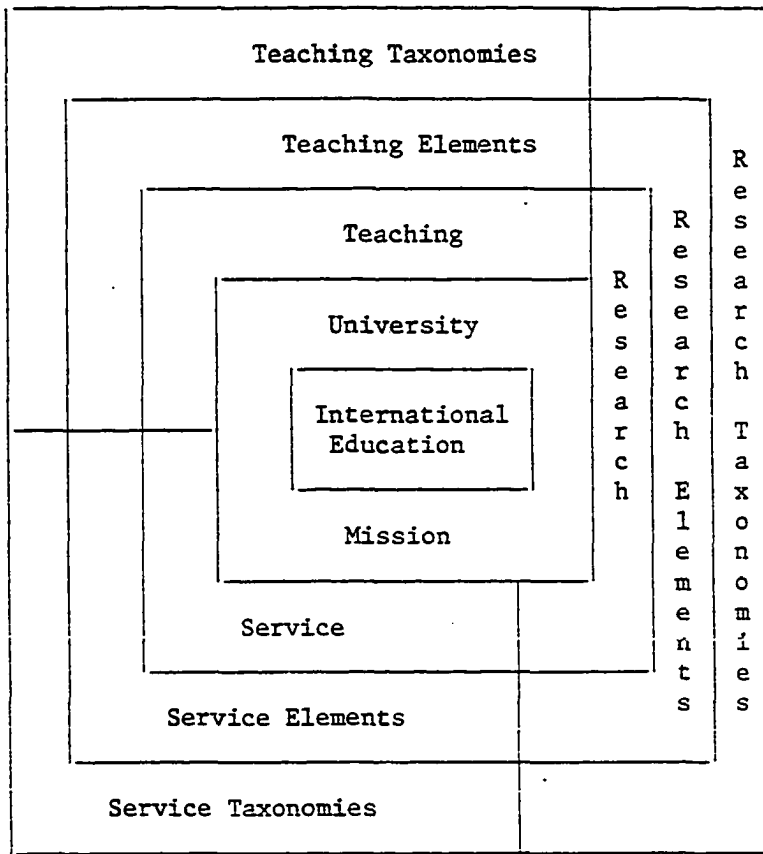


Figure 1. Depicts the matrix organization of international education in a university system

relationships and their meanings....It yields useful information concerning the nature of phenomena: what goes with what, under what conditions, in what sequences and patterns, and the like (page 50 of Handbook in Research and Evaluation).

By applying the analytical and matrix methods to the international education structure as a field of study, one can understand, explain and contribute toward the effectiveness of its organizational knowledge and problem-solving. In their book, A Primer on Organizational Behavior published in 1985, Bowditch and Buono explained the process of deductive reasoning in organizational research method thus:

In deductive reasoning, the researcher observes general phenomena and develops specific premises about those phenomena. Based on these premises, the researcher creates a model and through the principles of logic, reaches a conclusion about the phenomena in question. The conclusion is then compared to the initial observations to assess the degree of convergence. Essentially, this is a process of "putting two and two together by combining bits of knowledge obtained on separate occasions or drawing conclusions that follow from existing information. Although this is a logical process through which valid conclusions can be made from observations and premises, a

difficulty with deductive reasoning is that one must be sure that the premises are accurate (page 26).

Therefore, this study relating to the organizational structure of international education was based on Bowditch's organizational research method of deductive reasoning. The procedure here was divided into five phases. Each of the phases was expanded into the listed processes. The five major phases were:

Phase 1: Observable phenomena

Phase 2: Development of premises

Phase 3: Creation of logical model

Phase 4: Logical conclusion

Phase 5: Comparison of conclusion with observable phenomena

These phases constituted the procedure used for analyzing the data (Bowditch, and Buono 1985). See the definition of matrix organization.

Selected universities

Six land-grant universities were selected for the purpose of this study. The universities selected for this study have designated administrators responsible for coordinating international education. They have visible international offices with defined responsibilities in their structure.

The selection of the universities was based on the following criteria: The institutions have missions, goals and objectives guiding their activities. They were identical on all the described features; however, they did not constitute a representative sample of international education structure for all of higher education. Private

and parochial universities were not included. The study made no attempt to present the most ideal or the only appropriate structure. Each institution has developed international structures at its own institutional need and resource capacity.

Sources of data

The study utilized the original documentation provided through the publications, mission statement or supplied documents of each institution. This was considered an accurate and objective approach for collecting data on the structure of the international education practice. A total of six universities were selected. (See criteria on page 52.) These universities were Michigan State, Oregon State, University of Idaho, University of Nebraska, Oklahoma State and Washington State.

Instrumentation

A matrix instrument was developed purposely for collecting the research data. This was comprised of three domains of the university mission, ten elements for each of the domains, and four hundred fifty eight taxonomies. These were coded with letters and numbers to denote Teaching Elements Taxonomies (TET), Research Elements Taxonomies (RET) and Service Element Taxonomies (SET). The TET has 141, RET 158 and SET 155 taxonomies respectively. The sign "X" and "-" were used for indicating the available and non available taxonomies from the publications and other supplied documents from the six selected land-grant universities (see Appendixes A, B and C and Table 1.)

Table 1. Number of taxonomy in the ten elements^a of each domain of international education data^b

Category	Elements	One	Two	Three	Four	Five	Six	Seven	Eight	Nine	Ten	Total
	Domains	N	N	N	N	N	N	N	N	N	N	N
1	Teaching	25	10	9	8	16	11	14	23	12	13	141
2	Research	25	10	12	8	20	14	21	23	12	13	158
3	Service	25	10	14	9	15	14	27	12	16	13	155
	Total	75	39	35	25	51	39	62	58	40	39	454

- ^aOne = constituency
- Two = purpose
- Three = academic development
- Four = organizations
- Five = job title
- Six = incentives
- Seven = responsibilities
- Eight = international issues
- Nine = programs
- Ten = funding

^bThis Table 1 data are also illustrated on page 61, Figure 4.

Data collection

Telephone conversations were used in addition to the institutional publications for the collection of data in this study. The telephone numbers were collected from both the Office of International Educational Services and Dr. J. T. Scott in the College of Agriculture at Iowa State University. The director of international education in each of the universities was requested to send specific available publications on their international activities. The offices called cooperated favorably by sending the selected documents about their international involvements. The advantages of this method of data collection was that the data collected in such a manner can be transferred to other similar situations in a university organization (Bowditch and Buono, 1985).

Procedure for data analysis

The matrix procedure for analyzing the data was divided into five phases. Each of the phases was expanded into processes. The organizational research method of deductive reasoning was used to explain the structure from known to unknown variables. This enabled the researcher to move from specific information provided in the institutional publications to the development of ideas about the international education organizational structure. The procedure described here relied on generalization of organizational theory because it was assumed that the analysis of the classification of variables within the structure will be consistent if the study of international education in the selected land-grant universities concerned is repeated at some future time. (See Figure 2, page 56.)

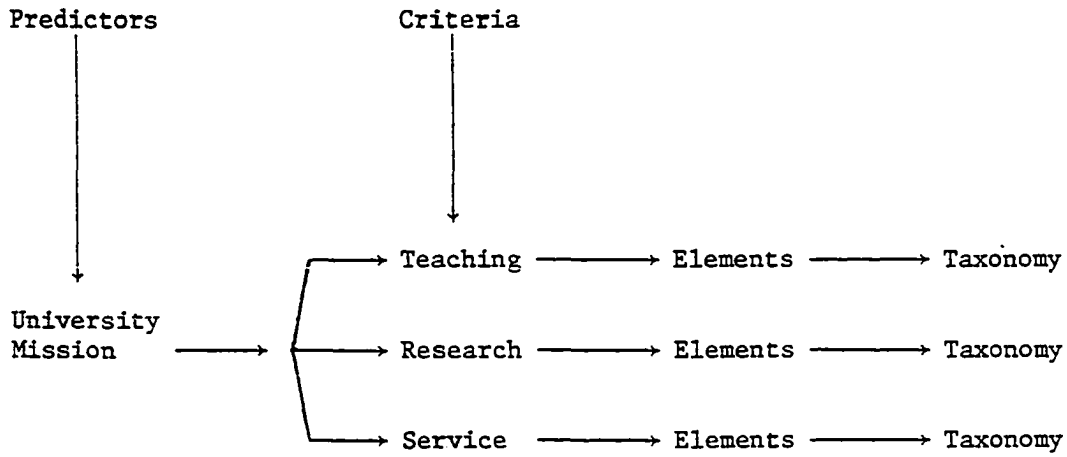


Figure 2. Depicts the predictor (independent variable) and criteria (dependent variable) and the matrix process of international education in a university curriculum

Based upon the procedural phases and processes, the observable phenomena and premises, three matrix models were created and conclusions were drawn. This was a process of synthesizing the knowledge, organizational structure and institutional resources obtained on separate institutions and drawing conclusions from the analysis of existing information about the organizational structure of international education.

Statistical measurements

Frequency counts, percentages and means were used for analyzing the data collected through the institutional documents supplied to the researcher from the six selected universities. Moreover, thresholds were calculated and established for making deductions about the data. (See definition of threshold in subsequent paragraph.)

Group mean

The frequencies of taxonomies recorded within the categories of elements were converted into percentages. The mean of the percentage data computed from each of the ten elements were calculated across the six selected universities and identified as a group mean. Therefore, ten group means were identified for each of the three domains -- teaching, research and service. The group means were named according to the particular domain represented. Thus, for teaching, research and service elements taxonomies -- TET Group Mean, RET Group Mean, and SET Group Mean -- were established in the study.

Thresholds

Thresholds were also established for the observations and deductions made about the data. The percentage number computed from the

vertical and the horizontal calculations of the ten element group means (to the nearest whole number) was identified as the threshold. For example, Table 3, page 68, the threshold for teaching was computed to be 71 percent. This was computed for all ten elements (horizontal) and all six institutions (vertical). Different thresholds were calculated for the research hypotheses. The group means and threshold percentages were used for deducing the difference of the variable data topically. This was done in order to facilitate the systematic interpretation of the data and to confirm the validity and reliability of observations, deductions, premises and generalizations made through the level of differences of hypotheses on taxonomies, elements, domains and the six selected land-grant universities. The following group means and thresholds were calculated for testing the research hypotheses.

1. TET group mean percentage
2. RET group mean percentage
3. SET group mean percentage
4. TET threshold percentage
5. RET threshold percentage
6. SET threshold percentage
7. Domain mean threshold percentage
8. International threshold percentage

Because the entire documentary research effort was aimed at exploration of new ideas, and a new quest for efficient and satisfying international organizational structures within a university administration, descriptive analysis was considered highly productive, meaningful and efficient.

Phases of data analysis

Phase one: Observable phenomena Phase one was expanded into processes. The process began with the identification of the classification scheme of organizational structure of international education. "Classification scheme" was the term introduced by the researcher for synthesizing the concepts of international education into three principal domains. The synthesized domains in the classification scheme of international education were:

1. Teaching and instruction activities concerning international individual/groups.

TET = Teaching Elements Taxonomy

2. Research opportunities concerning international individual/groups.

RET = Research Elements Taxonomy

3. Consultational involvements concerning international individual/groups.

SET = Service Element Taxonomy (See Figures 3 and 4.)

Next, the three domains in the classification scheme were compared regarding teaching, research and service in sequential order. This indicated that teaching was matched to denote curricular activities, research was matched to denote research opportunities and service was matched to denote consultational involvements concerning international needs, institutions and societies respectively. (See Figure 3, page 60.) By comparing the university's mission (teaching, research and service) and classification scheme in this way, it was possible to symbolize the independent (predictors) and dependent (criteria)

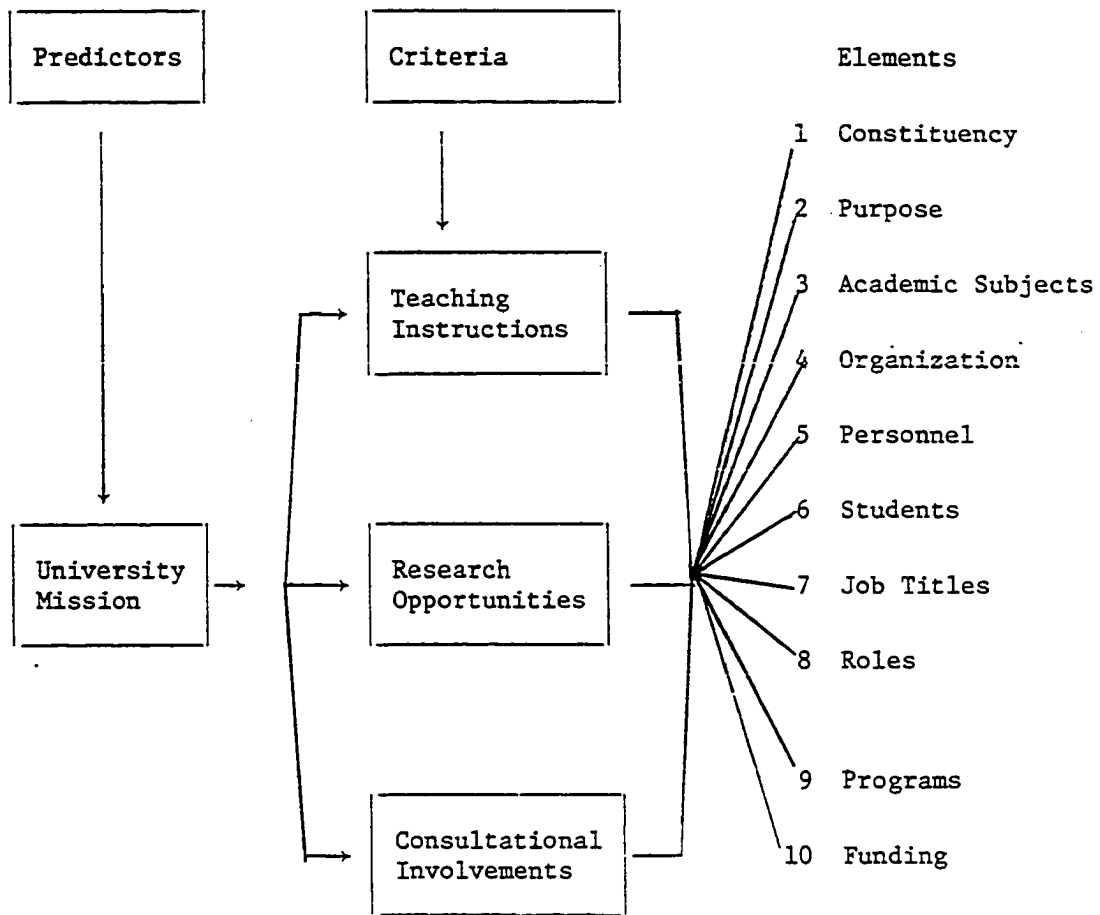


Figure 3. Depicts matrix analysis of the mission, classification scheme and elements of international education

<u>Elements</u>	<u>Teaching</u>	<u>Research</u>	<u>Service</u>
Constituency	One 25	One 25	One 25
Purpose	Two 10	Two 10	Two 10
Academic Development	Three 9	Three 12	Three 14
Organizations	Four 8	Four 8	Four 9
Job Title	Five 16	Five 20	Five 15
Incentives	Six 11	Six 14	Six 14
Responsibilities	Seven 14	Seven 21	Seven 27
International Issues	Eight 23	Eight 23	Eight 12
Programs	Nine 12	Nine 12	Nine 16
Service	Ten 13	Ten 13	Ten 13
Totals	141	158	155

Figure 4. Shows the number of elements and taxonomies of international education in a matrix system of a university organization

variables. That meant that the university's mission of teaching, research and service became the predictors or independent variables while the equivalent three domains in the classification scheme became the criteria or dependent variables.

In the second process of phase one, the three domains in the classification scheme were expanded into new independent (predictors), and dependent (criteria) variables were given a new level: elements. (Refer to Figure 3, page 60.) This construct indicates that the classification scheme became the predictors while the elements serve as the criteria. Here, the variables in the elements were purpose, academic developments, organizations, personnel, incentives, job titles, responsibilities, constituency, programs and funding.

The third process of phase one was the further expansion of the identified elements into predictors and criteria. At this point, each of the variables in the elements was expanded into predictors while taxonomy was introduced as a term used to stand for each of their criteria. The components were identified from the source of data in this study: the collected publications from the selected land-grant universities. When identified, the elements became the independent variables (predictors) and the taxonomy the criteria or dependent variables respectively. The Figures 1, 2 and 3 illustrate the scheme. It should be noted that the number of taxonomies in the elements of teaching, research and service domains differed.

Phase two: Development of premises The intent of phase two was to examine the structural variables based on theoretical value of model building. This phase also contributed to the structure of the

instrument, e.g., constituency was one of the coded elements in appendix. Phase two started with the development of structural variables. "Structural variables" was another new term introduced to refer to the variables discussed in the literatures of universities and organizations. They were used in the study to discuss the premises, administrative models, logical conclusions and relationships in the study. The identified structural variables were environment, decision-making, resources, dependence, communication, compensation, interaction, representation, interdependence, interaction, accessibility, autonomy, hierarchy, support systems and boundary span.

Phase three: Creation of administrative models Based on the outcome of the preceding phases, administrative models of organizational structure of international education were created. These models were centralized, decentralized and coalition.

CHAPTER IV.

FINDINGS

Introduction

The purpose of this chapter is to describe and explain the findings of the matrix analysis and the relationships of selected land-grant universities regarding their mission of teaching, research and service and the organizational structure of international education which were used as premises for designing the matrix centralized, decentralized and coalition models of international education in a university system.

Observable phenomenon

A careful study of the six selected land-grant universities revealed their development of documented mission statements regarding international education. The statements consistently reflect the universities' mission of teaching, research and service. The designed domains of international education and elements taxonomies were observable in their publications brochures and statements describing institutional activities. The number of taxonomies were not equally distributed across the ten elements. This perceived difference could be considered normal for the universities because of philosophical approach and the span of activities toward international commitments.

Therefore, specific comparisons of data between selected universities were avoided since the intent was not to make comparison but to test applicability of the models in the institutional administrative structure for international education. The act of

Table 2. The three domains of international education: complete data on six selected universities^a

No. ^b	Domains	ELEMENTS																					
		One		Two		Three		Four		Five		Six		Seven		Eight		Nine		Ten			
		\bar{n}	%	\bar{n}	%	\bar{n}	%	\bar{n}	%	\bar{n}	%	\bar{n}	%	\bar{n}	%	\bar{n}	%	\bar{n}	%	\bar{n}	%		
1	TET	10	40	8	80	4	44	8	100	4	25	6	55	6	43	9	39	11	92	6	46	7	60
	RET	15	60	7	70	7	58	5	63	6	30	9	64	16	76	10	43	12	100	8	62	10	63
	SET	15	60	10	100	13	93	5	56	5	33	5	36	24	89	12	100	15	94	10	77	11	74
	Mean	13	53	8	83	8	65	6	73	5	29	7	52	15	69	10	61	13	95	8	62	8	64
2	TET	17	68	10	100	8	89	5	63	6	38	11	100	14	100	5	22	11	92	10	77	11	78
	RET	19	76	10	100	11	92	7	88	11	55	12	86	16	76	5	22	10	83	12	92	10	77
	SET	15	60	10	100	12	86	8	89	10	67	13	93	27	100	11	69	16	100	12	92	13	86
	Mean	17	68	10	100	10	89	7	80	9	53	12	93	19	92	7	38	12	92	11	87	11	79
3	TET	18	72	8	80	6	67	4	50	3	19	5	45	6	43	6	26	9	75	4	30	7	51
	RET	19	76	10	100	10	83	4	50	13	65	6	43	18	86	8	35	9	75	6	46	10	66
	SET	16	64	10	100	10	71	7	78	4	27	14	100	21	100	9	75	14	88	6	46	11	85
	Mean	18	71	9	90	9	74	5	59	7	37	8	96	15	76	8	45	11	79	5	41	10	67
4	TET	24	96	10	100	6	67	8	100	7	44	11	100	8	57	13	57	12	100	10	77	11	80
	RET	22	88	10	100	12	86	8	100	12	60	14	100	19	90	11	48	10	83	12	92	13	85
	SET	25	100	10	100	14	100	9	100	4	27	14	100	26	96	9	75	16	100	12	92	14	89
	Mean	24	95	10	100	7	84	8	100	8	44	13	100	18	81	11	60	13	94	11	87	12	85
5	TET	22	88	10	100	9	100	8	100	5	31	11	100	7	50	11	48	12	83	11	85	11	80
	RET	22	88	10	100	11	92	6	75	5	25	14	100	7	33	9	39	10	100	11	85	10	72
	SET	25	100	10	100	14	100	9	100	6	40	14	100	27	100	11	41	16	100	13	100	15	88
	Mean	23	92	10	100	11	97	8	92	5	32	13	100	14	61	10	43	13	94	12	90	12	80

		\bar{n}	%	\bar{n}	%	\bar{n}	%	\bar{n}	%	\bar{n}	%	\bar{n}	%	\bar{n}	%	\bar{n}	%	\bar{n}	%	\bar{n}	%		
6	TET	23	92	10	100	9	100	8	100	4	25	11	100	7	50	11	48	12	100	9	69	10	74
	RET	16	64	10	100	10	71	7	86	5	25	14	100	21	100	9	39	12	100	10	77	11	76
	SET	25	100	10	100	14	100	9	100	7	47	14	100	27	100	12	100	16	100	13	100	15	95
	Mean	21	85	10	100	11	90	8	62	5	32	13	100	18	83	11	62	13	100	11	82	12	80
General Mean		19	77	10	96	9	83	7	78	7	38	11	90	17	77	10	52	13	92	10	75	11	76

^aRefer to Figure 4 on page for breakdown of elements and taxonomies.

- b₁ = Oregon State
- 2 = Michigan State
- 3 = Oklahoma State
- 4 = Washington State
- 5 = University of Idaho
- 6 = University of Nebraska

comparing patterns regarding teaching, research and service domains data was considered valid in this finding (see Table 2).

Research hypothesis 1

The Teaching Element Taxonomy (TET) group mean percentage amongst ten elements (below and above) will differ across the six selected land-grant universities.

TET group mean findings

The TET group mean of element one was 76%. When this was compared across the six selected universities, Oregon (40%), Michigan (68%) and Oklahoma (72%) fell below the group mean while Washington (96%), Idaho (88%) and Nebraska (92%) were above the group mean. This indicated that the constituency served under the international teaching mission varied across the six universities (see Table 3).

The TET group mean for element two in the teaching domain was 93%. Four out of the six universities -- Michigan (100%), Washington (100%), Idaho (100%) and Nebraska (100%) -- scored above group mean while Oregon (80%) and Oklahoma (80%) scored below the mean. Therefore, the group mean percentage was very high for four of the six universities but the elements of purpose were not of the same percentage level.

The group mean for element three was 78%. Three universities -- Michigan (89%), Idaho (100%), and Nebraska (100%) -- were above the group mean. Oregon (44%), Oklahoma (67%), and Washington (67%) were below the group mean. This indicated that academic development was different on international teaching taxonomies. The raw data on degree concentration (TET 3:5) indicated required courses (TET 3:7) and elective courses were not available at many of the six universities.

Table 3. Summary of percentages for the teaching domain of international data

No. ^a	Universities	One	Two	Three	Four	Five	Six	Seven	Eight	Nine	Ten	Mean
		N=25 %	N=10 %	N=9 %	N=8 %	N=16 %	N=11 %	N=14 %	N=23 %	N=12 %	N=13 %	N=10 %
1	Oregon St.	40	80	44	100	25	55	43	39	92	46	60
2	Michigan St.	68	100	89	63	38	100	100	22	92	77	78
3	Oklahoma St.	72	80	67	50	19	45	43	26	75	30	51
4	Washington St.	96	100	67	100	44	100	57	57	100	77	80
5	U. of Idaho	88	100	100	100	31	100	50	48	100	85	80
6	U. of Nebraska	92	100	100	100	25	100	50	48	100	69	74
	Mean	76	93	78	86	30	83	57	40	93	64	71

^aKey:

- 1 N = Number of taxonomy in each element of teaching domain.
- 2 % = Percentage of frequencies in each category of elements in teaching domain.
- 3 One, twoten = categories of elements in teaching domain
(date calculated to the nearest whole number).

Many other taxonomies of academic development were documented (see Appendix A).

The TET group mean for element four was 86%. Four universities -- Oregon, Washington, Idaho and Nebraska were above with 100% each while two of them -- Michigan (63%) and Oklahoma (50%) -- scored below the mean. Therefore organization of teaching domain was not significantly different across the six universities.

The element five had group means of 30%. Oregon (25%), Oklahoma (19%) and Nebraska (25%) ranked below the group mean. Michigan (38%), Washington (44%) and Idaho (31%) were above the mean. There was no difference at a notable level compared with the group mean in this element. However, the generally low data here showed that job titles of the teaching domain in a university organization were not used for describing international teaching commitments. Titles like Vice President (TET 5:7) and Dean (TET 5:6) were not applied to identify the international positions related to teaching in any of the six universities.

The sixth element of the teaching domain, incentives, had a group mean of 83%. With 100% each, Michigan, Washington, Idaho and Nebraska were above the group mean percentage. Oregon (55%) and Oklahoma (45%) were below the mean. The taxonomies of this element were centered around the motivational factors for teaching international education. The implication of the finding here was the need for meticulous documentation of the teaching incentives provided toward international education in the universities. The positive difference evidenced through the majority of universities with above-mean data reflected the

quantity and quality of documented taxonomies of incentives provided to the researcher.

The group mean percentage of the seventh element was 57%. Four out of the six universities -- Oregon (43%), Oklahoma (43%), Idaho (50%) and Nebraska (50%) -- ranked below the group mean except for Michigan (100%) and Washington (57%) which were above the group mean respectively. This indicated a notable difference in the responsibilities and taxonomies of teaching. It also reflected the level of resources invested in the international pedagogy.

The eighth element's group mean percentage was 40%. The data for all the universities in this teaching element of international issues revealed a slightly lower mean. Michigan (22%), Oklahoma (26%) and Oregon (39%) fell below the group mean. Idaho (48%), Nebraska (48%) and Washington (57%) ranked above the group mean. When studied closely, the raw data contained in Appendix 1 indicated that nuclear power (TET 8:1), causes of war (TET 8:6), apartheid in south Africa (TET 8:10), prejudice and discrimination (TET 8:17) were not indicated for all the universities. The implication of this lack of data was the need for teaching taxonomies on international issues that will create awareness for the interdependent nature of the modern world.

Element nine had a group mean of 93%. Three universities -- Nebraska, Idaho and Washington -- had 100% data each while Oklahoma (75%) was followed by Michigan and Oregon with 92% respectively. This indicated that there was no significant difference in the data across the six universities here. The positive reflection on program taxonomies was an evidence of documentation and provision of the

information to the researcher.

The group mean percentage for the tenth element was 64%. Oklahoma (30%) and Oregon (46%) were below the group mean while Washington and Michigan (77%) each, Idaho (85%) and Nebraska (69%) were below the group mean. Viable international teaching depend on the vehicle of adequate funding. The positive difference of the data above the mean in most of the universities showed that emphasis was laid on funding innovations in international teaching.

Summary

Among the most pertinent findings, it was noted that constituencies served through the international activities varied. Meticulous documentation of the international commitments would be very crucial to future research ventures. This is because future research would need available institutional data. Such documentation will be extremely valuable to make follow-up study possible. The need for teaching taxonomies on international issues would be part of the necessary awareness about the interdependent world. The notable difference in the responsibilities, titles and organizations was a reflection of the level of resources invested in international pedagogy.

Research hypothesis 2

The RET group mean percentage amongst ten elements (below and above) will differ across the six selected land-grant universities.

RET group mean findings

The RET group mean percentage for element one was 75%. Four universities — Washington (88%), Idaho (88%), Michigan (76%) and Oklahoma (76%) — scored above group mean while Oregon (60%) and

Nebraska (64%) scored below the group mean. There was evidence here that element one, constituencies, had more utilized taxonomies than teaching. State and national legislatures were not included in the served constituencies list by the international taxonomies of research.

The second element had a group mean of 95%. Except for Oregon with 70%, all the other five universities had a total of 100% data.

Generally, the information indicated that statements of purpose were based on the international education research of the institutions.

With the group mean of 80%, element three represented high percentage data. Two universities -- Oregon (58%) and Nebraska (71%) -- were below the group. Michigan (92%), Washington (86%) and Oklahoma (83%) were the four universities with above-mean percentage data. This indicated that library research (TET 3:6) and off-campus research (RET 3:7) were not equally emphasized in the supplied information from the universities. The high group mean suggested that academic development was considered by the universities as part of the research elements taxonomy.

Element four on organizations had a group mean of 77%. This group data were above group mean for Nebraska (86%), Michigan (88%) and Washington with (100%) data. Oregon (63%), Oklahoma (50%) and Idaho (75%) were below the mean. Oklahoma had the lowest documentation on this particular element. Research volunteers (RET 4:6) and (RET 4:4) were not observed in the documents supplied by half of the universities.

The six universities had low percentages on element five. The group mean was 53%. Oregon had (30%), Idaho (25%) and Nebraska (25%) below the mean. Oklahoma (65%), Washington (60%) and Michigan

(55%) were above the group mean. Compared with the group mean in other elements, RET five ranked the lowest. Particularly, job titles like Vice President (RET 5:1), Dean (RET 5:2), Professor (RET 5:5) Research Advisor (RET 5:18) were rarely documented in the publications available on research domain. Michigan applies the title of vice president, Oklahoma assistant dean, and Washington use the title of instructor toward international research jobs. A more explicit explanation of job titles can assist and improve the evident taxonomies of international research. This implies great specificates of responsibility and span of control for activities within the international education.

The sixth research element had a group mean of 77%. Oklahoma (43%) and Oregon (64%) scored lower data than group mean. Michigan (86%), Washington, Idaho and Nebraska each had 100% data that were above the group mean. This indicated that incentives vary and were not evenly distributed or possibly documented in the supplied university information. Oklahoma has no information on promotion (RET 6:1) or vacation privileges (RET 6:3) to mention a few. However, all the six universities have information on the research opportunities and peer acknowledgment in the supplied information in this research. This implied that an intermittent pattern of documentation could affect the level of available data on incentives.

The group mean for the seventh element was 77%. This focused on the responsibilities. Three universities -- Idaho (33%), Oregon and Michigan (76% each) -- were below the group mean percentage. Nebraska with 100% was next to Washington (90%) and Oklahoma (86%) respectively. Most of the universities had good information on various

responsibilities in the teaching domain (Appendix A). Generally, there was specific information available from all the universities on the theoretical, empirical and quantitative research in international education.

Element eight on international issues had the lowest of the ten with a group mean of 38%. Michigan (22%) and Oklahoma (35%) ranked below the group mean percentage. Oregon (43%), Idaho and Nebraska with 39% were above the mean of the group. The commitment to research by these institutions was a great evidence of documentation. Research on other issues like apartheid, war and nuclear power were not mentioned in any of the publications provided the researcher.

The ninth element had a group average of 87%. Four of the six universities scored lower than the group mean on this particular element. These were Oklahoma (75%), Michigan, Washington and Nebraska each with an 83% mean. The message from the data was that programs were well credited with research domain taxonomies.

The tenth element on funding sources for international research had a group mean percentage of 76%. The supplied documents available to the researcher did not specify the funding sources. Washington (92%), Michigan (92%), Idaho (85%) and Nebraska (77%) were above the group mean while Oregon (62%) and Oklahoma (46%) were below it. The fact that a majority of the universities had above-mean data indicated a positive notion of the availability of resources in those institutions toward international research. The funding information was a difference of significant dimension regarding international research commitments.

Summary

Research evidence in this domain could be improved through the concise elucidation of the job titles and responsibilities. Utilization of incentives were not evenly documented for the six universities. A thorough understanding of wholistic taxonomy in research domain might accelerate the supply of information for future international research. There was positive information about the funding sources toward international education. There was a general pattern of differences in the group mean percentage across the six universities (see Table 4).

Research hypothesis 3

The SET group mean percentage amongst ten elements (below and above) will differ across the six selected land-grant universities.

SET group mean findings

Service element one had an 81% group mean percentage. Three universities -- Oregon (60%), Michigan (60%) and Oklahoma (64%) -- scored below the group mean while Washington, Idaho and Nebraska each had 100% above the group mean. This information implied that taxonomies on constituency were not provided as part of complete documentation. Many constituencies were positively served above the group mean.

The second element in the service domain had an 100% group mean. That indicated that a documented statement of purpose was clearly written. It was a consistent testimony to the institutional attention that was paid to the service domain.

The group mean for element three was 92%. Michigan with 86% and Oklahoma with 71% ranked below the group mean. However, with the total of 100% each, Washington, Idaho and Nebraska joined Oregon's 93% above

Table 4. Summary of percentages for the research domain of international education data

No. ^a	Universities	One	Two	Three	Four	Five	Six	Seven	Eight	Nine	Ten	Mean
		N=25 %	N=10 %	N=9 %	N=8 %	N=16 %	N=11 %	N=14 %	N=23 %	N=12 %	N=13 %	N=10 %
1	Oregon St.	60	70	58	63	30	64	76	43	100	62	63
2	Michigan St.	76	100	92	88	55	86	76	22	83	92	63
3	Oklahoma St.	76	100	83	50	65	43	86	35	75	46	66
4	Washington St.	88	100	86	100	60	100	90	48	83	92	85
5	U. of Idaho	88	100	92	75	25	100	33	39	83	85	72
6	U. of Nebraska	64	100	71	86	25	100	100	39	100	77	76
	Mean	75	95	80	77	43	77	77	38	87	76	73

^aKey:

- 1 N = Number of taxonomy in each element of research domain.
- 2 % = Percentages of frequencies in each category of elements in research domain.
- 3 One, two,ten = Categories of elements in research domain.
- 4 (Data calculated to the nearest whole number).

group data. Personnel policy, counseling and placement services were not documented for some universities (see Appendix C). The generally high group mean was good evidence available to suggest the provision of services towards academic development.

The group mean for element four in the service domain was 87%. Oregon (56%) and Oklahoma (78%) scored below the group mean. Washington, Idaho and Nebraska scored above the group mean with 100%. The indication here was that committee and board were not included as part of the organization taxonomies supplied by the institutions for this research.

The fifth element on job titles had a low group mean of 40%. Oklahoma and Washington each had 27%. Michigan (67%), Idaho (40%) and Nebraska (47%) were above the group mean. It then implied that the usually familiar titles in the university administration like Deans and Executive Vice President were not used for describing international positions. There was no information about the effect of this on the university activities in the document within the researcher's disposal (see Appendix B).

Element seven had a group mean of 98%. Oregon with 89% and Washington with (96%) have less than group mean percentage. Four universities — Michigan, Oklahoma, Idaho and Nebraska were above the group mean with a total of 100% each. The evidence from the data showed that service responsibilities were more adequately documented amongst the universities.

The group mean for element eight was 77%. Oregon had 100% and Washington had 75%, Michigan (96%), Oklahoma (75%), Idaho (41%) and Nebraska (100%). This showed the through documentation of international service. Alumni information was not available to the researchers across the six universities (see Appendix C).

Service element nine had a group average of 97%. Four universities scored above the mean. Oklahoma (88%), Oregon (94%) were the only two with the data below the mean. Washington, Idaho, and Nebraska had 100% each. The majority of the institutions had strong provisions for programs in international education. However, the absence of internship and career programs from Oregon and Nebraska might have impacted the lower group mean percentage.

The element ten, funding, had a group mean of 85%. Two universities - Oklahoma (46%) and Oregon (77%) were below the group mean. Michigan (92%), Washington (92%), Idaho (100%) and Nebraska (100%) were above the group mean data. Loans, budget and levy taxonomies of funding were not included in the provided information. The fact of the matter was that one could not confirm from the supplied documents that those taxonomies on the funding sources were utilized by the universities concerned. Generally, the funding sources above mean data across most of the six universities suggested the level of attention paid to international services in the selected universities.

Summary

The generally high means were a positive reflection of the services provided toward international academic services. The applied job titles were somewhat inconsistent with the usual academic job titles within the

universities. Evidence from the data was that service responsibilities were more adequately documented amongst the six universities than the other two domains. This finding may be interpreted to mean that greater commitment to service is being made by faculty or that research and teaching are not emphasized as service. This supported a conclusion of different levels of the service commitments in the studied universities.

Research hypothesis 4

The TET threshold percentage will be different across the six selected land-grant universities.

Teaching threshold findings

A threshold level of 71% was established for the teaching domain data (see Table 3). This was used for analyzing, comparing and deducting information across the six selected universities and ten elements in Table 3.

Elements two and nine across the six universities have different data. This indicated that both purpose and programs were documented in the international publications or brochure of the institutions above the threshold level. On the contrary, elements five and eight were not of high data because of their low comparison with the threshold. Five out of the six universities have different data on element seven. At least two institutional data at a time were lower out of the ten elements.

This pointed out that job titles and international issues were lacking in their teaching taxonomy in all the six land-grant universities. The many numbers of universities with lower data on responsibilities again pointed out the deficiency in documentation. It could be inferred that low data in any particular element might be

related to documentation and other factors within the structural variables which have influenced the type of international education commitments generally available for needed documentation.

Research hypothesis 5

The RET threshold percentage (lower or higher) will be different across the selected land-grant universities.

Research threshold findings

The research threshold level was 73%. All the comparable levels of difference were deductively considered in relation with the threshold. Four universities — Michigan, Oklahoma, Washington and Idaho — have high percentage on element nine. At least, four universities were above the threshold levels out of the ten research elements.

The elements that were above the threshold included constituency, purpose, academic development, incentives, international issues and funding. Three universities were above the threshold levels on job titles, responsibilities and programs. When combined, the mean of the ten elements was above the threshold.

Research hypothesis 6

The SET threshold percentage (lower and higher) will be different across the six selected land-grant universities.

Service threshold findings

The computed threshold for the service domains was 83%. Consistently, this threshold was used for analyzing and deducting information about the universities and the ten elements tabulated in Table 5.

Four universities were above the level of threshold out of the ten elements. These elements were (SET TWO) academic development, (SET THREE) organization, (SET FOUR) incentives, (SET SIX) responsibilities, (SET SEVEN) programs, (SET NINE) funding, (SET TEN) job title, (SET FIVE) and international issues (SET EIGHT). The data on element eight suggest that international issues have not been given much attention in the service domain area. These may be related to the type of taxonomies identified within the structural domains of the university international missions.

Research hypothesis 7

The domain mean threshold percentage will be different across the ten elements in each of the six selected land-grant universities.

Domain mean threshold findings

The calculated threshold for this report was 76%. This was calculated through the vertical and horizontal finding of the means across the three domains (teaching, research and service) and the six selected universities (see Table 6). The data analyzed in Table 6 were the mean of the data collected on the three domains of international education from each of the universities.

The combination of the three domains in three universities — Michigan (78%), Washington (80%) and Idaho (80%) have data above threshold level while the others — Oregon (60%), Oklahoma (51%) and Nebraska (74%) — have a lower percentage that was below the threshold.

Three universities — Michigan (77%), Washington (85%) and Nebraska (77%) were of percentages above the threshold level. Data from Oregon (60%), Oklahoma (66%) and Idaho (72%) were lower than the threshold.

Table 5. Summary of percentages for the service domain of international education data

No. ^a	Universities	One	Two	Three	Four	Five	Six	Seven	Eight	Nine	Ten	Mean
		N=25 %	N=10 %	N=9 %	N=8 %	N=16 %	N=11 %	N=14 %	N=23 %	N=12 %	N=13 %	%
1	Oregon St.	60	100	93	56	33	96	89	100	94	77	74
2	Michigan St.	60	100	86	89	67	100	100	69	100	92	86
3	Oklahoma St.	64	100	71	78	27	36	100	75	88	46	85
4.	Washington St.	100	100	100	100	27	100	96	75	100	92	89
5.	U. of Idaho	100	100	100	100	40	100	100	41	100	100	88
6.	U. of Nebraska	100	100	100	100	47	100	100	100	100	100	76
	Mean	81	100	92	87	40	88	98	77	97	85	83

^aKey:

1. N = Number of taxonomy in each element of service domain.
2. % = Percentages of frequencies in each category of elements in service domain.
3. One, twoten = categories of elements in service domain.
4. (data calculated to the nearest whole number).

Table 6. Summary of mean for total frequencies and percentages in the domain of international education across six universities

Universities ^a	1	2	3	4	5	6	Mean
Domains	Mean	Mean	Mean	Mean	Mean	Mean	Mean
	\bar{n} %	\bar{n} %	\bar{n} %	\bar{n} %	\bar{n} %	\bar{n} %	\bar{n} %
Teaching	7 60	11 78	7 51	11 80	11 80	10 74	10 71
Research	10 63	10 77	10 66	13 85	10 72	11 76	11 73
Service	11 74	13 86	11 85	14 89	15 88	15 95	13 86
Mean	8 64	11 79	10 67	12 85	12 80	12 80	11 76

- a1 = Oregon State University
 2 = Michigan State University
 3 = Oklahoma State University
 4 = Washington State University
 5 = University of Idaho
 6 = University of Nebraska
 N = Average of taxonomy in each category
 % = Percentage of taxonomy in each category

Note: These data show the mean of all the frequencies and percentages of taxonomy in each category of the ten elements in the teaching, research and service domains of international education.
 (data calculated to the nearest whole number) See Table 1).

The service domain data were above the threshold level in five universities - Michigan (86%), Oklahoma (85%), Washington (89%), Idaho (88%) and Nebraska (95%). The domain findings reflect that more universities were above the threshold than those below it on the taxonomies of international education.

There was valid evidence of a progressive degree of increment from teaching through research to service domains of international education. This indicated that teaching received the lowest attention, followed by research and service in the sequential order of magnitude. A comparison of teaching with the domain data of (71%) research (83%) and service (86%) revealed that more analysis of tasks in international education could enlighten the decision makers on the required structure that could encourage the allocation of resources at an adequate level of improvement in international efforts.

Research hypothesis 8

The international threshold percentage will be high across the six selected land-grant universities.

International threshold findings

Synoptic data from the three domains (teaching, research and service) were reported in this finding. Again, the established threshold was 76%. This was used for giving information deducted on the three combined domains across the ten elements.

The combination of the three domains constitute the international education mission of a university. All the six universities in this study were above threshold in elements dealing with purpose and programs. Three universities had data above the threshold on

constituency, academic development, organization, incentives, responsibilities and funding elements taxonomies. More attention was paid by all the six universities on programs.

Table 7 showed the stand of each university compared with the threshold of 76%. Again, there was a confirmation of the incremental data of the domains. A thorough analysis of tasks would be needed before an improved balance could occur with the international education domains and taxonomies.

General Summary

The means and thresholds values were not used to denote the internal quality of the university's international activities or programs. They were neither used for comparing or promoting one institutional international involvements over the other. They were used however, as an approach to examining the documented data for the purpose of testing the applicability of the matrix models regarding particular activities in each of the three domains of a university's mission of teaching, research and service. (See Figure 5.)

A clearer grasp of such activities could provide greater insights into the type of organizational structure that would best serve to administer these activities. The findings were based solely on the written information supplied through the university international publications, brochure and mission statement to the researcher.

The constituencies served by the international education varied across the six land-grant universities. While differences were observed, the similarities were more prominent throughout the

Table 7. Summary of mean for frequencies and percentages in the three domains of international education for each selected university data

No.	Universities ^a	One		Two		Three		Four		Five		Six		Seven		Eight		Nine		Ten		Mean	
		N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
1	Oregon St.	13	53	8	83	8	65	6	73	5	29	7	52	15	69	10	61	13	95	8	62	8	64
2	Michigan St.	17	68	10	100	10	89	7	80	9	53	12	93	19	92	7	38	12	92	11	87	11	79
3	Oklahoma St.	18	71	9	90	9	74	5	59	7	37	8	96	15	76	8	45	11	79	5	41	10	67
4	Washington St.	24	95	10	100	7	84	8	100	8	44	13	100	18	81	11	60	13	94	11	87	12	85
5	U. of Idaho	23	92	10	100	11	97	8	92	5	32	13	100	14	61	10	43	13	94	12	90	12	80
6	U. of Nebraska	21	85	10	100	11	90	8	62	5	32	13	100	18	83	11	62	13	100	11	82	12	80
	Mean	19	77	10	96	9	83	7	78	7	38	11	90	17	77	10	52	13	92	10	75	11	76

Note: This is the mean of the entire data collected in every university regarding the teaching, research and service domains (elements and taxonomy) of international education (data calculated to the nearest whole number) (See Table 1).

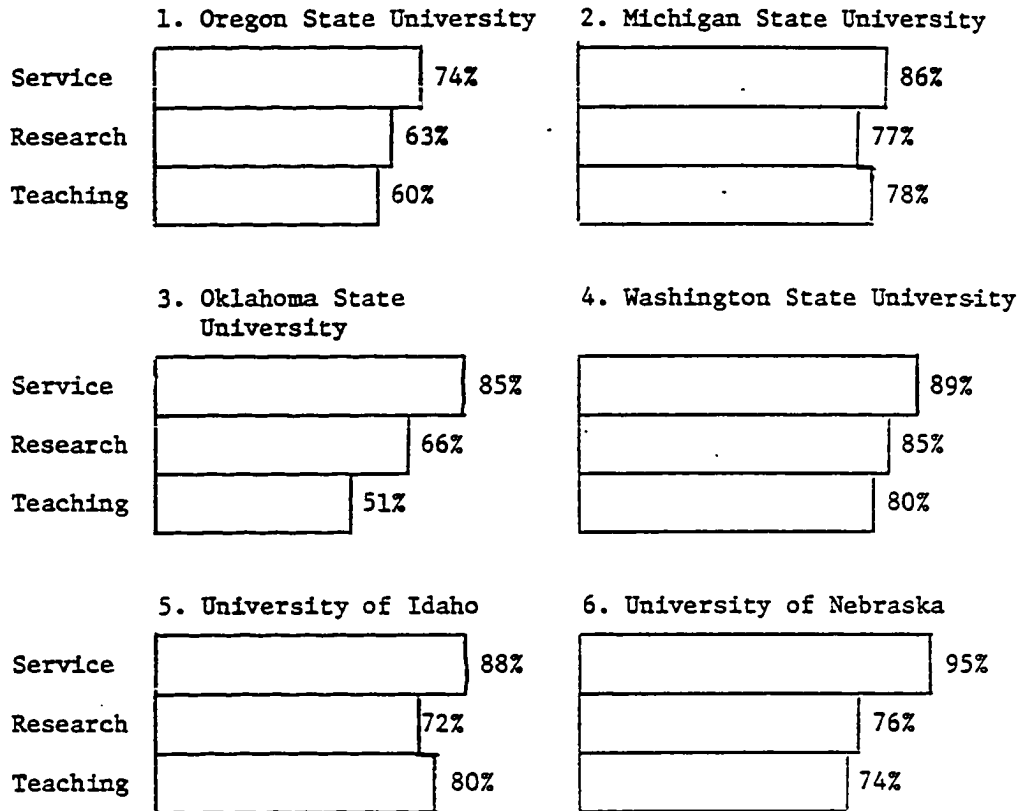


Figure 5. Shows the mean of percentages in the elements and taxonomies of international education in selected universities. Note the consistency in magnitude of each university data

TET mean = 71
 RET mean = 73
 SET mean = 83
 Threshold = 76

comparative data. This was particularly evidenced in the service domain. Teaching and research were not as comprehensively documented by some universities as their services.

The regular academic titles that were traditionally attributed to the universities were not applied consistently to describe international positions and responsibilities of this study. International issues like terrorism, apartheid, war, nuclear power and hunger were not readily evidenced in the international document of most universities.

Future research of this nature would require meticulously documented information. Faculty participation could increase through the provision of incentives attached to vacation, faculty improvement leaves and research opportunities in foreign countries. Deficient provisions of funding sources information was evident in most of the studied universities.

CHAPTER V.

TRANSITION: FROM ANALYSIS TO MODEL BUILDING

Introduction

This chapter is intended for synthesizing the theories of the literature reviewed and the findings in the previous chapter into a premise for designing the centralized, decentralized and coalition models of international education structure.

Transition

The review of the literature of organizational theories and models, the creation and testing of the matrix and the design of the three proposed models are the outcomes of creative synthesis of all knowledge gleaned through the research efforts.

Any of the models would have to accommodate the taxonomies and elements appropriate to that particular organizational structure. For example, constituency (see element one in Appendixes A, B and C) should include taxonomies reported in the elements. All the ten elements should reflect their appropriate taxonomies in the same way.

Figures 6, 7 and 8 illustrate that great flexibility of interaction between individual department and colleges can be facilitated to achieve desirable outcomes. This is necessary in order to bear on the autonomy, freedom and voluntary participation of the faculty in the international education affairs.

The burst of energy and expertise within the university can be optimized in international education when faculty and staff who have felt left out of the organizations decision-making perceive their chance for inclusion. Movement from traditional bureaucracies ought to imply flexibility, participation, and changing environmental conditions. Faculty's interest and participation in international education ventures, in addition to tenure, freedom, and autonomy must recognize and reward skills and productivity through generated international resources.

The ability of an organization to maintain an advantageous relationship with outside interest groups via the possessed resources can facilitate creditable image and a favorable reputation in the community of diverse and interdependent activities. Preservation of organizational identity and integrity can be achieved through the resolution of problems and adversarial confrontations. Administration and integration of hierarchical patterns of work specialization in international commitments deserve a structure adaptable to the overall university mission. Capability to take a risk is an optimistic beacon toward a formative administrative model.

Premise

The international involvements of the land grant universities have been progressively relevant to the needed awareness and sensitivity about the interdependent world, democracy and human rights. The technological innovations of world civilization can be maximized through international education and technical assistance. The universities as a

cartel of knowledge and research information have the unique obligation of creating international curriculum as a heritage to posterity.

In fact, the kaleidoscopic international administration should adapt the practice of integrating the different parts, viewpoints, goals, loyalties and attitudes in the process of facing the leadership challenge of today's humanity. The matrix administrative model ought to provide the structural criteria that embraces the domains, elements and taxonomies of internationalism within the collegial, political and bureaucratic governance of a university system.

The evidences from this research have confirmed the efficacy of matrix administrative structure in the context of international education. The classification scheme of the university mission with its adjacent domains are indispensable tools of integrated design of international model. The ten identified elements with 458 taxonomies can aid the mutual administration of international education with minimum difficulty. The use of boards, committees and consortia can facilitate the pulling of expertise and skills together in solving international education problems.

The assigned roles must be specified and documented so that formative evaluation can be stimulated. Responsibility is an integral part of incentive. Faculty expertise can be identified with the expressed interest in programs, issues and research opportunities. Any noted disparity in the enumerated taxonomies can be rectified and improved.

The universal principles of administration were based on the division of labor, collective responsibilities and concomitant

evaluation toward academic research. Moreover, fund-raising and possible monetary supporters in the constituency should be identified, encouraged and pursued. The various business, government and private diplomats of every nation of the world use to pass through the academic walls in their university education. The more the higher education planners are able to convince the administrators and policy makers about the end product of international education, the better the understanding of our world will lead to peaceful coexistence.

CHAPTER VI.

TRANSITION: ANALYSIS OF MODEL BUILDING

Introduction

The proposed matrix administrative structures of international education have a positive fundamental philosophy that the knowledge about our interdependent world is an indispensable aspect of the higher education curriculum. It also shares the notion that every department, college and constituency embraced in the institutional preparation of the students need the necessary information for their growth and educational totality.

The metamorphic changes of the university structure and administration bear consistently on the realization of the unavoidable evolutionary processes and stages. They depend on many specific factors of organizational developments. Some of these are the mission of the university, the belief systems of the decision-makers, the state of the economy and the commitment of institutional resources towards the achievement of international education goals.

Currently, it has been realized that participatory involvement of the constituencies via the community services can buttress the resource potential of an international education program. Therefore, in order to guarantee the freedom, autonomy and recognition of the individual faculty member's expertise, the structure has been carefully geared to avoid direct control and administrative coercion that may ruin the job of voluntary involvement and maximum contribution. As a result, the

collegial democratic participative approach has been born in mind in the structuring process.

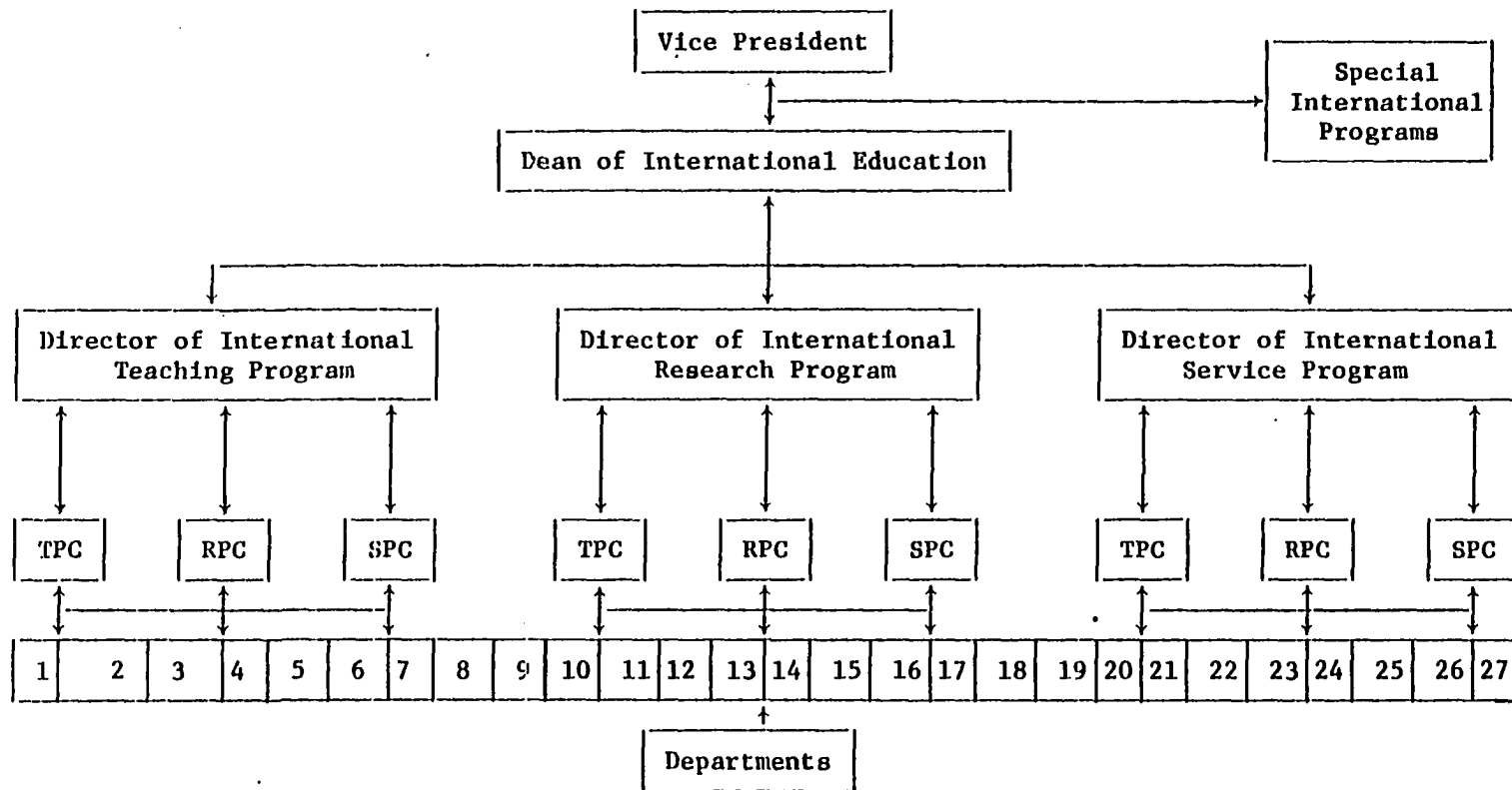
The various advantages and disadvantages of the three structures have been presented so that every institution may adapt in part or in total the one that relates to its historical setting and traditional institutional administrative structure. It should be remembered that the international education practice is still going through its own stages of evolutionary development. It is hoped that it may be a powerful solution to all the prejudice and misconceptions that disrupt the present generation if gradually addressed institutionally.

The centralized matrix administrative structure has been designed to reflect the traditional hierarchical system of communication and chains of command in the university system. The structure is designed as a separate entity in the university for taking care of all international education activities and concerns by the faculty.

The specified elements and taxonomies in the study have been incorporated through the designation of personnel for each domain territory — teaching, research and service. These have been stressed at the coordinator's and director's levels. However, the reporting patterns are through the academic deans and vice presidents. (See Figure 6, page 95.)

Matrix centralized model

The organizational model chart of the matrix centralized administrative structure is depicted on page 95. Figure 6 shows the hierarchy and chains of command designed for effective international education under a centralized system.



TCP = Teaching Program Coordinator
 RPC = Research Program Coordinator
 SPC = Service Program Coordinator

Figure 6. The proposed model of central administrative structure of international education in a matrix university organization

Vice president

In addition to his normal administrative role, the vice president takes responsibility for strategic decisions on international affairs in consultation with the president. He supervises the activities of the dean of international education who reports to him directly from time to time in international matters.

Dean of international education

The dean of international education is the central administrator of international education. In addition to his attributory role, he decides on the appointment of the directors of teaching, research and service who directly report to him about their various duties in the college. He formulates the necessary policy decisions and recommends actions regarding promotion, tenure and benefits in these areas of responsibility.

The directors

They are intermediate administrators between the Dean of international education and the coordinators of teaching, research and service for a particular department. The three directors of teaching, research and service are appointed and directly report to the dean. They all have faculty status in addition to their respective job responsibilities. Each of them directly supervises three coordinators of the various teaching, research and service functions of their domains. The director takes responsibility for recommending and evaluating the performance of the coordinators.

Coordinators

The coordinators have an administrative responsibility as well as maintain their status on the faculty. They perform regular administrative duties in addition to teaching international courses in the college. They coordinate all international inputs and initiates from the faculty and serve as the contact person in their respective roles of teaching, research and service. They, in addition, coordinate all activities and responsibilities described in relation to the respective domain and taxonomies indicated in Appendixes A, B and C.

Advantages of matrix centralized model

1. International education is given a college academic status because of the central administrative control by the dean.
 2. All the departments and colleges on the campus have been represented by this structure. (See page 95.) They can serve as the clearinghouse for all academic activities of the faculty in terms of teaching, research and service.
 3. It is economical because fewer personnel are needed for its routine duties.
 4. It can stand the test of time because it can add or subtract any expensive program without too much impact on its overall effects.
 5. It has greater potential for institutional financial support through the university budget and outside agencies. There is a synergy effect of cooperative and collaborative efforts.
 6. It can become a viable and reliable administrative structure in the university because it embraces all international teaching, research and services.
-

7. It has the capability of generating funds through its extension and consultative programs.
8. It may be relatively easy to adapt in an institution that has a long history of voluntary international activities.
9. It is easy to implement in an institution principally financed by the board of trustees or regents which control all the expended resources on international ventures.
10. It can only flourish under a dynamic political and internationally reputable leadership who has scholarly and international relations skills.
11. It can facilitate the creative capability and cross-disciplinary perspective of the faculty.
12. It facilitates also simplicity of communication and interaction in regard to networking.

Disadvantages of matrix centralized model

1. It is difficult to adopt a centralized structure in an institution that has not previously facilitated systematic voluntary participation in international education.
 2. There will always be the fear of faculty's suspicion because of the administrative control that may slight their academic freedom and sense of autonomy in the area of one's expertise.
 3. There is a good chance of an arbitrary budget cut in programs when the economy is in difficulty.
 4. Full participation of the faculty is not guaranteed because of self-defense or lack of international experience or incentives.
-

5. Feedback and accountability needed would be limited to faculty participation and input.
6. Evaluation may be vague because of a lack of specific documentation that can allow for improvement.
7. The boundary span is limited because the faculty will only be protecting their college. For example, they would like to be addressed as professor of their discipline instead of international education which they have just been attributed to.
8. Communication is mainly by memo and departmental directives. This does not encourage collective international responsibility.
9. Participation may also be more difficult to enforce because of tenure and unresolved personality conflicts.
10. Fund-raising may be difficult because collaborative efforts at the faculty level is not possible.
11. The fear of imposition by central administration could impinge upon the reluctance of the very active and the very inactive departments.

Matrix Decentralized Administrative Structure

Decentralization refers to the dispersal of authority (low concentration) for making decisions throughout a number of positions in an organization. The chain of command depends on the extent of participation and input from all levels of faculty individuals. Decentralization is associated with high complexity and formalization. In a university system, the decentralization approach will grant more decision-making authority to local units. It will rely more on informal

methods, oral communication, and more frequent interaction and problem-solving between members of departments and the central administrators.

The matrix philosophy of decentralization of international education emanates from the following concepts:

- (a) The university is a complex organization with the traditional academic freedom, autonomy and security of the faculty members.
- (b) Faculty members may choose or carefully select their participation in international activities.
- (c) The level of participation depends on peer recognition, prestige, incentives, participation and professional autonomy.
- (d) The recognition and appreciation of international involvements as a yardstick for professional advancement and rewards.
- (e) The full acceptance of the fact that directive assignment of international participation may be resisted through reluctant participation that may be less productive.
- (f) It recognizes the need of the entire university academic staff to be internationally active and involved.
- (g) The fact that all students need to know about the international education issues and be sensitive through exemplary awareness of the academic advisors as mentors.
- (h) It is easier to decentralize international activities during institutional economic health.

Matrix decentralized model (See Figure 7, page 101.)

The designed model of decentralized international education is under the vice president for academic affairs. The figure on page 101 depicts the new model.

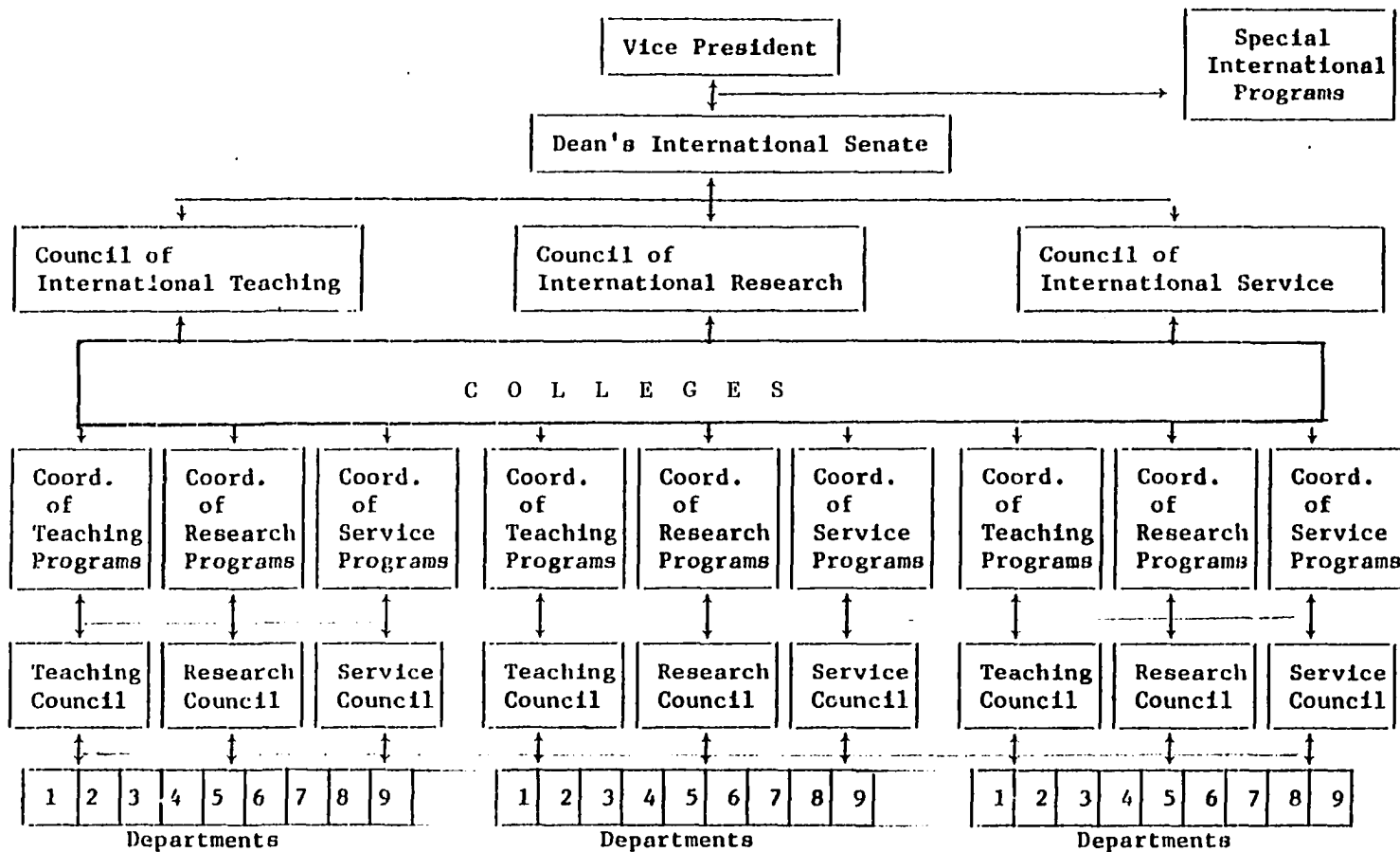


Figure 7. The proposed decentralized administrative structure of international education in a matrix university organization

Vice president

In the model, the vice president makes strategic decisions after their active perusal at the dean's international senate. He takes the final responsibility for approval of the decisions taken at the deans international senate. He approves the constitution and regulations of the various sessions.

Dean's international senate

The dean's international senate is the supreme university forum for international decisions and actions. They debate, discuss and recommend on all university international policy as it relates to teaching, research and service of the university. This assembly is important because all the college deans are represented in formulating decisions on the goals, administration and distribution of the university's resources on international commitments.

Council on international teaching, research and service

The council is open to all the colleges within the university. They send their elected representatives to the meetings because of their international teaching, research and in service activities according with the drawn constitution of the respective councils. They discuss, debate and recommend the various actions to be taken regarding the international teaching, research and service of the university. It is democratic because it is the meeting of the faculty with unique areas of their expertise. The lack of control by a college dean makes the forum cordially professional. They discuss the agenda submitted by the faculty through the departmental councils of the various colleges on the campus. The three councils (teaching, research and service) each send

their recommendations to the dean's senate.

College coordinators

College coordinators call the meetings in their domains of responsibility. They do not necessarily chair the meeting for reflecting effective collegial climate. They report regarding the teaching, workshop, seminar research, service, visitors, proposals and other details of taxonomies indicated for their domains in Appendixes.

Council

The departmental councils are attended by the faculty according to their interest, expertise and innovations. It is the forum where the departmental inputs are coordinated and debated for appropriate decisions of the department. The three domains are each represented by different councils as indicated in Figure 7. The international functions this way can be an area where the input of the faculty is appreciated, recognized and rewarded by the university.

Advantages of matrix decentralized model

1. It allows more participation of the faculty in international affairs because there is no central control.
 2. Faculty may have better professional interaction within related departments on international issues.
 3. It encourages the whole internationalization of the campus educational curriculum.
 4. The resourcefulness and creativity of the faculty can be fully utilized for mutual benefit.
 5. It allows more careful discussion and resolution of international problems relating to teaching, research and service.
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6. It can allow for more multicultural awareness through pluralistic sensitivity.
7. More funds can be raised because all faculty members are involved with their off-campus connections.
8. It can promote better documentation and better evaluation of the year to year objectives and goals.
9. The total university faculty expertise can be geared toward international cooperation.
10. The deans can have a more prominent role to play in making unified decisions on international programs without negative international protection consequences.
11. Commitment of the institutional resources to the goals and objectives of international education can be increased.

Disadvantages of matrix decentralized model

1. It can be expensive because of the need to back the joint proposal of the faculty financially.
2. There may be more political pressure on the administrators on some international priorities.
3. Evaluation may be difficult because of the unspecified group initiative and control.
4. Commitment may be minimized if the activities are not exactly rewarding to the faculty.
5. It is difficult to change to the operation of an open-system in a perceived university closed-system.
6. The transition may be resisted because of loss of autonomy on the part of the traditional university administrators.

7. It is difficult to change from centralized to other forms of administration without grinding axes with some groups in the system.

8. It may be difficult or expensive to operate during weak economic.

Coalition matrix administrative structure (See Figure 8, page 106.)

The principles of coalition in matrix organizational administrative structure postulated that individuals are constrained in their behavior by normative, interpersonal and resource structures. Their interaction is further constrained by the understandings that have evolved among person-specific relationships. (See Figure 7.)

Coalition formation is at the core of social organizations. An organization may be seen as a set of connected persons or a set of coalitions. Coalition is a purposeful action within the structure of an organization. One makes or joins a coalition because such a behavior facilitates one's goals or objectives.

In fact, coalition refers to a number of individuals or units cooperating in order to obtain any kind of advantage over other individuals on certain decision making areas for the whole group. It can be described as a social tool to win competition. This is because the members do not automatically give each other an equal share of the advantages of their joint efforts.

Within any single organization, some groups can influence and control other groups in rather significant ways. Organizations of university departments and colleges vary in the kinds of goals pursued within the general institutional mission. They struggle for autonomy, security and prestige just as groups do within an organization. Those university departments or colleges which have an authority basis for

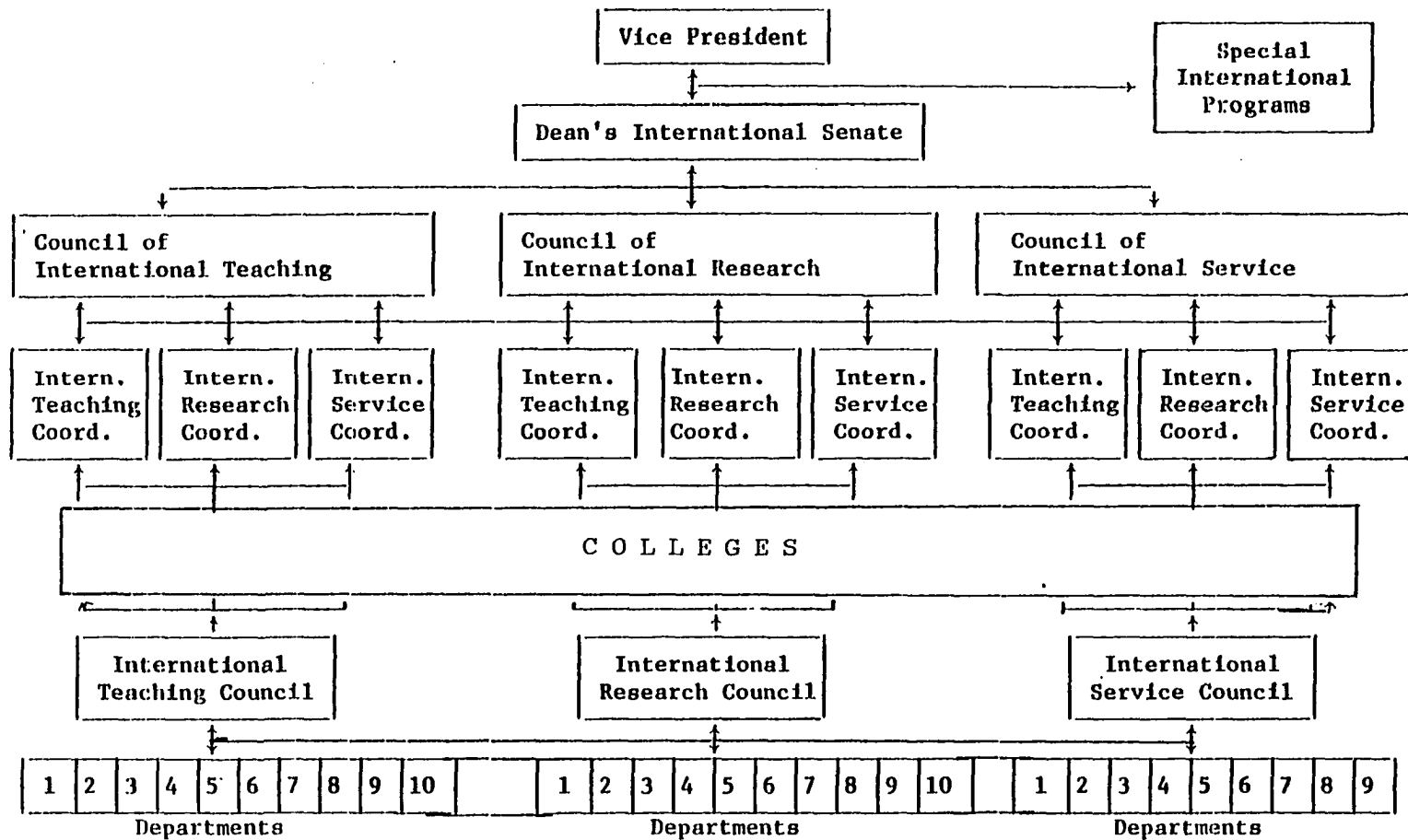


Figure 8. The proposed model of coalition administrative structure of international education in a matrix university organization

their attempts to influence and control key environmental units have a higher level of organizational security than those which must rely on others for sharing power means. In short, each college and department has maximum security in its relations with most of its institutional segments.

The individual identity in a coalition is not replaced by a group identity nor is their individual commitment replaced by a uniform set of rights and obligations.

Matrix coalition model

A coalition model is a mixture of both centralized and decentralized models. The coalition model operates at college levels. Two or more colleges can form a coalition from the department to the various international councils. They can all represent their coalitioned colleges at various international council meetings.

Vice president

The vice president makes decisions as in the case of centralized or decentralized models.

Dean's senate

The dean's senate performs the same function as is the case in the decentralized model.

International council

The international council has three levels --teaching, research and service levels. All faculty from all the colleges can be represented according to the constitution.

Research coordinators

Research coordinators perform the same role as is the case in the decentralized model, but they represent a coalition of colleges. They function to represent more college territories.

Departmental councils

The combined colleges constitute the forum of the council. They make decisions in their various domains of responsibilities as in the decentralized model (see Figure 8).

Special programs

The special programs are those programs that were not usually carried out by the faculty of individual department; for example immigration services of the universities, and specially established projects designed for special purposes or audiences. All of them are supervised directly by the vice president in relation to other university systems (see Figure 8).

Advantages of matrix coalition model

1. Coalition administrative structure is a powerful instrument for effective management of resources in the period of economic exigency.
2. It can promote and facilitate the exchange of resources, ideas and personnel.
3. It can be used to sponsor joint proposal that can be of benefit to the members of the coalition.
4. It is a meaningful way of achieving cooperation among the various institutional departments.
5. Better professional interaction can result from any advantageous joint proposal or program.

6. It encourages participation without fear of administrative coercion.
7. It can be considered a moderator between the centralized and decentralized administration.
8. When used for international education, it can be an effective method of winning the interest of the colleges and departments.
9. It promotes democratic control of international education with strong professional stratification of the faculty.
10. It is less suspicious because the program is coordinated by the faculty's colleague rather than the central administrator.
11. Additional funds can be generated through the coordinated use of expertise on programs or proposals.
12. It makes the university more involved internationally within the realistic specifications of teaching, research and service efforts.
13. It promotes cooperative efforts towards more productivity in the international education engagements.

Disadvantages of matrix coalition model

1. Members or college units in the coalition may be different regarding individual and group beliefs about the program which can reduce cooperation.
 2. Fear of exploitation and opportunistic use of resources may occur.
 3. There may be personality conflicts among the faculty members of the international education coalition.
 4. Many faculty members maybe left out or remain passive because of he authoritative personality of the domain council members.
 5. Wrong groups may be structured together before a devastating situation emerges from their disfunction.
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6. It may repress creativity because of the need for professional individual recognition.
7. Accountability may be vague because no individual member or group can take responsibility for failure.
8. Decisions may be delayed because of the many inputs and opinions.

Summary

There were differences and similarities between the elements within the three separate domains of teaching, research and service. It is summarized that there were more similarities as evidenced in Figure 5 and Table 6 than there were differences.

The similarities were most evident in the domains of service followed by research and lastly teaching. This observation prompts the conclusion that because of the diversity of service activities and perhaps centralized, coalition and decentralized organizational structures may be flexible to accommodate such diversity for purpose of testing the applicability of the models regarding the useage of particular activities. Traditionally, there has been a greater degree of participation in the research and teaching however, future opportunity may be expanded in the area of collaborate teaching under an appropriate structure.

However, it also prompts the premise that perhaps the centralized organizational structure is essential to expanding and coordinating teaching activities which rely predominantly on institutional commitment and allocation of resources. Institutional flexibility is a critical consideration in the developmental process of an appropriate organizational structure based on carefully documented analysis and

evaluation of selected elements within the three domains. It also indicates that appropriate situation structures gained wide support from a social theory of organization and the present research effort in exploring models for international education.

It is conclusive to suggest that matrix centralized, coalition and decentralized models seem to provide choices and alternatives to institutional administrators which will be accomplished in part during the evolutionary stages in their developmental process.

The research exercise went through an analytical case study of six selected universities which helps in trying to quantify the elements within the research design to identify the wide array of elements and know what activities they carried out in those universities. There was no comparison of international education qualities in this finding but only content analysis of activities carried out within institutions. The exercise was an academic investigation into the theoretical model building in the area of perceptions and intricacies related to international education administration. It is the act of introducing the researcher to curricular development through model and structural analysis in the field of higher education.

Researcher's discussion

Communication is the keynote of all organizational operations and international relations. In fact, the vitality and creativity of a university with an international education perspective depends upon the content and character of its communication patterns appropriate to meeting international need, and getting things done within the framework of the university mission. Perhaps it is necessary to recognize that

Table 8. Comparison of Administrative Models of International Education

	Centralized	Coalition	Decentralized
^a A	hierarchical	interdepartmental	open discussion
B	central control	coordinator's level	for strategic decisions
C	economical	encourages cooperation	uneconomical
D	largely made at the top	by representation	made by consensus
E	not easy to change	more flexible	democratic opinion
F	low risk taking	high risk taking	high risk taking
G	policy and written memo	restriction to participating group	formal discussion
H	some feel left out	more input	more participative
I	intermittent and general	shared responsibility	collegially done
J	limited	limited purpose	somewhat unlimited
K	lack of commitment	shared responsibility for funding	broader base of support
L	very conditional and low	selective participation	greater participation
M	managed at the top	well managed	collectively decided
N	limited audience	limited	wider audience
O	vertical	mixed	horizontal
P	through the dean	dean's senate	dean's senate
Q	staff meeting	council	council's level
R	chains of command	brainstorming	debate and discussion
S	somewhat limited	limited representation	general representation
T	top to bottom	mixture	bottom to top
U	headed by Vice President	headed by Vice President	headed by Vice President
V	dean to Vice President	Vice President	headed by Vice President
W	Vice President	through dean's senate	dean's senate
Criteria Key:			
^a A	communication	I evaluation	Q forum
B	leadership	J boundary span	R staff instruction
C	efficiency	K fund-raising	S representation
D	decision-making	L participation	T organization
E	flexibility	M resources	U Model 1
F	creativity	N services	V Model 2
G	information	O structure	W Model 3
H	faculty	P reporting	

the communication channels and processes are different for the three proposed models and that the centralized model provides the most difficult communication network.

Because people are usually skeptical of the unknown, it is been natural to fear change and to panic in a period of unprecedented change. Certainly, we change our environment and are changed by it. The structure, technology, tasks, processes, environment and people are subjected to change through identification, creation, facilitation and reinforcement of desirable factors for new equilibrium.

Challenges and responses are a fundamental aspect of life. The history of civilization yields evidence of this phenomenon as a succession of challenges and efforts to cope with them fills the record of mankind. Any treatment of international education at the university level in this age of technology and automation should begin with orientation to the concerns and aspirations of the peoples, the nagging problems and potentials of societies and the imperative that relate to the global future. The urgency of expanding teaching, research and services suggests an increased institutional commitment to the three principal missions with particular emphasis on teaching international education.

This generation must accept the catalog of crises plaguing this age and strive to achieve the desired solution before the dawn of the 21st Century. History records many crises and catastrophies which marked the end of their civilizations. Indeed, this century recounts the flourished developments of nations and people that disappeared in the world wars, hunger and lack of capacity to respond to challenges that

occurred and reoccurred in various forms. In addition, the failure of the League of Nations, the array of terrorism, the tolerance of apartheid through the benevolence of its perpetuation, the influence of the "Veto" in retaining the political status of United Nations and the global strains effected through the contrasting ideologies of the eastern and western hemisphere will remain indelible in human minds..

The recorded efforts of civilizations and peoples to cope with famine, flood, pestilence, aggression, treachery, slavery, tyranny, bigotry, crime and novel weapons of war clearly would yield no answer until there is an unconditional recognition of the university system as the promoter of international education.

The university leadership role has to be expanded to include the knowledge and research base for comprehending the more universal human problems and their pressing needs for resolution. It is not only a need but a necessity for the survival of the human generation and destiny. Again, the age of plenty will not dawn suddenly upon human beings around the interdependent world. Its achievement will depend upon comprehensive programs of reform through international education and committed hard-working university administrators.

International education and innovative structural models may be a threat to the conservatism of people who find old ways best, who dread the prospect of facing the unknown and the unfamiliar prospect unless a sustained reality of thought is involved. It is evident that a great many people abhor change of any kind for reasons of emotional security. Modern international norms in higher education continue to pay a high price for the privilege of refusing to act through the imperative

problems and sound appropriate policies that can effect solution like a blacksmith's forge.

University education must teach international processes and emphasize the practice of reflective thinking in the international curricular spectrum. The emphasis upon international thinking and creativity deserve high priority and support by all who believe that international education efforts can adequately meet the global challenges of contemporary time. Efforts of various individuals and groups in higher education to devise and strengthen international understanding and machinery designed to keep the peace on a global scale ought to continue to provoke the countenance of the thoughtful administrators, educators and research scholars in the international education business and everywhere. Unless we learn to choose constructive and sound international administrative structure and policies for using resource, and the university research findings and to develop ethical relationships with human beings everywhere, we can anticipate the similar termination that befell the civilizations before ours, only one more final and terrible. "Nuclear war can not be won and must never be fought," says President Ronald Reagan of the United States of America. It is fearful to think of the terminal difference: the chance of other civilizations arising from nuclear error will be nil. A thorough international education policy and a vitalized content for the international curriculum through the mission of teaching, research and service cannot be developed and adopted without widespread participation of the faculty, undergraduate students, graduate students, administrators, alumni, the university community, the board of regents

and thoughtful responsible citizens of good will.

This is fundamental to the adoption of a new international structural model that will influence the policies and programs. It represents the most effective kind of international education system in higher education; it offers the needed encounter and alternative needed. Widespread concern about participation in international education is an imperative. If the university mission of an teaching, research and service is not a myth, it would be able to yield to the echoing voice of international call. Appreciation, recognition and rewarding of the mission with interior domains, elements and numerous taxonomies of international education is an epoch in the chapter of a university's contribution to the progressive existence of the human race and international education as a unique academic discipline. Brubacher and Wills (1976) concluded that the "American university has been interpreted as illustrating the pragmatic genius of the American people, their readiness to try anything new at least once only if it only promised to yield valuable results" (page 404).

CHAPTER VII.

CONCLUSION

Matrix analysis of international education offers the chance to isolate the mission and synthesize the critical elements and taxonomies within the variables of a university organization system. The use of matrixes is standard in many fields where complexity is an issue especially for explaining things that are multidimensional. The matrixes are helpful for understanding the university mission of teaching, research and service with clear visualization. This allows for the identification of factors of international education within the knowledge of their interrelationships. In order to analyze the institutions situation in detail, we need to consider each area of teaching, research and service individually and look at how the various areas interact with their elements and taxonomies.

The mission of the university product of teaching, research and service should be equally valued. Three models are conceived to achieve this. The organization must essentially recognize that if people are able to function well together, the work of international education can be improved.

People in an educational institution create the product and are part of the product. In each of the key elements in the taxonomies of international education, there are people issues that can make or break the whole improvement process. The matrix may offer a way to energize people in the institutions to do a better job toward international

commitment. The designed catalytic function of action research can be performed in this way to produce evidence needed to solve international practical problems and to deepen insights involved in the teaching and learning tasks significantly. Research of this type, as a human enterprise must study, learn from and be of help in this direction.

Curriculum and administrative designs in higher education can serve as a means to broad educational reforms. These designs should include the facts and effects of pluralism in learning experiences. The ten elements identified together with their derived taxonomies deserve instructional, administrative and staff development experimentation if backed by adequate funding. International education can be perceived as a curricular necessity that every segment of the institutional constituent ought to understand in higher education.

Implementation of research finding attached to the matrix study of the mission, elements and taxonomies can accelerate the university academic purpose and commitments. The organizational method of the academic development in international education is very crucial to the needed outcome. Application of the dean, professor or chair of international education in describing the job titles can lead to better role performance and accountability by the faculty and students. However, without adequate incentives of promotion, tenure, research and oversea opportunities these may not be realized.

The choice of international issues and curricular responsibilities can enhance the selection of the faculty personnel needed for international academic participation. Meticulous documentation of the various international activities can facilitate a progressive formative

evaluation toward academic research. Moreover, fund-raising and possible monetary supporters in the constituency should be identified, encouraged and pursued. The various business, government and private diplomats of every nation of the world use to pass through the academic walls in their university education. The more the higher education planners are able to convince the administrators and policy makers about the end product of international education, the better the understanding of our world will lead to peaceful coexistence.

Recommendations

Based on the research evidence, the review of theoretical foundations and the designed models, the following recommendations would be made in relation to the prospect of international education research and development.

1. There is a need for meticulous documentation of the international objectives and activities of which the entities of teaching, research and service are clearly delineated so that formative evaluation and research projects can be facilitated toward the improvement of international education.
2. There should be further research studies into the domains of teaching, research and service of international education and the university's mission by experts and scholars.
3. A delphi research technique can be used to review the developed instruments and the coded taxonomies. Delphi technique is particularly used by professionals to judge the merit of contents.
4. A comprehensive survey of the international education program can be carried out to determine the pragmatic deficiencies of international

education practices.

5. Faculty and administrator opinion can be sought regarding the three proposed models and their adoption in the university system.
6. The effect of international students on the organizational structure of international education can be explored.
7. There is a need for current information for establishing the international education curriculum as a discipline for advanced study.
8. Standard evaluation of international education programs can only be done through the specific identification of the hierarchical pyramid of purpose. In descending order, they are philosophy, policy, mission, goals, objectives, activities, outcomes and evaluation.

It is therefore hoped that the acceptance of international education into the order of academic discipline will open a new chapter in the era of questing for world peace through homeostatic curriculum on the interdependent world.

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ACKNOWLEDGMENTS

Many obligations are incurred in the long process of seeing a project like this one through to completion. The greatest of those debts, of course, is owed to my Divine Maker and Redeemer, Jesus Christ to whom the providence and benevolence of my existential achievements are accountable.

The professional guidance, stimulation and support received from my program of studies committee members were uniquely rewarding and complimentary to my learning experiences. My chair, major professor and coordinator of my academic program at Iowa State University, Professor Larry Ebberts was an unfailing benefactor in the hours of need and in the face of diplomatic danger, a safe guide. The candor of his caring support and challenge will enhance the journal of my quest and evaluation about humanity, friendship and posterity across the ocean. His editorial expertise and semantic sensitivity were generously expended on the manuscripts. The tolerance of his wife, Barbara and children during my demand of the unofficial time deserve special mention and commendation.

It was Professor William Wolansky who first stirred my interest in an international education topic. His consistent suggestions through the reading of the drafts allowed me to explore better alternatives in shaping the final production. His cordial relationship and all-round interaction with me provided opportunity for an independent internship and professional apprenticeship. My understanding of international education has been enriched by his consistent proximity.

The Socratic remarks and style of the Vice President George Christensen on my initial work on this study sent me in search of the common ground on which I hope international education approaches to curricular development and radical theory of university organization can and will cooperate. I have learned that research designs, methodology and findings must contingently reflect their utility, contribution to knowledge and purpose. His regular availability for reading, reacting and reassuring on the processes of this study confirmed his reputable flexibility, reliability and humane devotion as a veteran administrator, distinguished international professor and scholar.

Professor Thomas Andre rendered quality hours of possible applications of the research findings while Dr. Martin Limbird as the director of International Educational Services was always available for brainstorming and cooperating with helpful resources at his disposal. The timely assistance of his staff in locating the various addresses of international offices and publications boosted the speed and success of the data collection. Without the collective backing of these distinguished committee members I could not have victoriously smiled at the academic storm.

During the formative stages of this research, I received very helpful advice from Dr. Daniel Robinson, Dr. Richard Warren, Dr. Tony Netusil, Dr. John Bower, Dr. J. T. Scott and Dr. Charles Mulford. My various interviews with them aided the unmeasurable insight upon which the research effort was developed. Whilst they are in no way responsible for anything I have written, their interest in the project reassured me that I was at least on the right track.

Since that time, a large number of other individuals have kindly offered their assistance and encouragement. I would like to express my appreciation to them all. A special debt is owed to the universities that permitted and assisted with the documented materials perused for this study. My free access to their international documentations and written activities facilitated the academic exploration and research into the structure of international education.

Numerous people have cooperated in sending documented materials from their universities. These include Bob Haggerty, International Student Coordinator at University of Idaho, Moscow; Dr. Glade Presnal, Program Coordinator at Oklahoma State University, Stillwater; Marilyn Taylor Nwanze at Texas A and M University System, College Station; Mrs. Mary Jo Turley, Secretary to the Director at Purdue University, West Lafayette; Mrs. Debora Williams, Assistant to the Director at Mississippi State University, Starkville.

Other universities that cooperated in sending materials include the following: University of Illinois at Urbana-Champaign, University of Maryland, College Park, North Carolina State University, Raleigh, Pennsylvania State University, University Park, Oregon State University, Corvallis, University of Nebraska, Lincoln, Washington State University, Pullman and Michigan State University, East Lansing.

My relatives and friends in Nigeria were very prayerful with their material support toward my education. They include Mr. Steve and Mrs. Elizabeth Aina, Bose and Emily Owolabi, Gabriel Aleyibo, Mesharck Adeyemi, Mr. and Mrs. Babalola, Segun Korode, Sunday Olawuyi, Wuraola Adeoye, Mr. and Mrs. Oni, Mr. and Mrs. Oyinloye, Mr. and Mrs. Justice

Oluoti. Isaac Owolabi thought the research design was terrific before I even wrote a single word. With his wife, Abigail, they were prayerfully supportive of my academic endeavors.

I also thank my friends, teachers and well-wishers in the United States. They include Mr. and Mrs. Harvey Thomas, Mrs. Margaret Wiinamaki, Dr. Louis Klitzke, Dr. Priscilla Hauffman, Dr. Donald Osegard, Chancellor Robert Swanson, Mr. Paul Fenton, Dr. Carlyle Gilbertson, Dr. Mary Hopkins Best, Dr. Calvin Stout, Dr. John Deutscher, Mr. Chuck Buelow, Mrs. Ann Josephson, Dr. Bob Wurtz, Mr. and Mrs. Victor Saltzman, and Cindy Taylor. I also appreciate the role played by Elizabeth Gifford in proof-reading the typed scripts and Doris Plath for her delicate typing work that met the desired specifications.

Last but not the least, my acknowledgment could not be completed without mention of my wife Victoria and my sons, Gideon and Gabriel. Those boys relieved the tedium by coming to scribble at my desk. They provided love while not really understanding what Daddy was up to. Few scholars are privileged to have a wife such as mine. Her understanding and spiritual maturity have been the invaluable source of inspiration and comfort. She was always there putting up with the drain of time and energy involved. She was able to give her active support despite the tensions of our academic and domestic undertakings.

At this time, tradition dictates that the researcher assigns credit for all that is positive about his objectives and findings such as those mentioned above while accepting responsibilities for all that is negative: this I do.

The views expressed are my own and lacking the faith of a scientist in the pursuit of international truth, I remain sufficiently uncertain about the international mission of teaching, research and service in the land-grant universities not to wish to pass them off in dissertation fashion.

The intellectual metamorphosis of any university organization would support the importance of trying to stimulate the models of administrative structure within the reality of international education and curriculum via excellent research and scholarship.

To God be the glory forever.

APPENDIX A .

SELECTED LAND-GRANT UNIVERSITIES

Teaching Elements Taxonomy (TET) Data

TET ONE	CONSTITUENCY	1	2	3	4	5	6	a
1:1	U.S. undergraduate students	X	X	X	X	X	X	b
1:2	U.S. graduate students	X	X	X	X	X	X	
1:3	Foreign undergraduate students	X	X	X	X	X	X	
1:4	Foreign graduate students	X	X	X	X	X	X	
1:5	Faculty	X	X	X	X	X	X	
1:6	Administration	X	X	X	X	X	X	
1:7	U.S. institutions	X	X	X	X	X	X	
1:8	Foreign institutions	X	X	X	X	X	X	
1:9	Community businesses	X	X	X	X	X	X	
1:10	Community school systems	-	X	X	X	X	X	
1:11	Community ethnic groups	-	X	X	X	X	X	
1:12	Community at large	X	X	X	X	X	X	
1:13	State organizations	-	X	X	X	X	X	
1:14	State businesses	-	X	X	X	X	X	
1:15	State legislators	-	X	-	-	-	-	
1:16	State communities at large	-	X	X	X	-	X	
1:17	National organizations	-	-	-	X	X	-	
1:18	National legislatures	-	-	-	X	-	X	
1:19	National business associations	-	-	X	X	X	X	
1:20	National foundations	-	X	X	X	X	X	
1:21	United Nations agencies	-	-	-	X	X	X	
1:22	Professional associations	-	-	-	X	-	X	
1:23	Educational associations	-	-	-	X	X	X	
1:24	International associations	-	-	-	X	X	X	
1:25	International organizations	-	-	X	X	X	X	

TET TWO	PURPOSE	1	2	3	4	5	6
2:1	Teaching philosophy in international education	X	X	X	X	X	X
2:2	Teaching policy in international education	X	X	X	X	X	X
2:3	Teaching mission in international education	X	X	X	X	X	X
2:4	Teaching needs in international education	X	X	X	X	X	X
2:5	Teaching goals in international education	X	X	X	X	X	X

- ^a1 = Oregon State University
 2 = Michigan State University
 3 = Oklahoma State University
 4 = Washington State University
 5 = University of Idaho
 6 = University of Nebraska

^b"X" = denotes observable taxonomy.
 "-" = denotes unobservable taxonomy (See page 53.)

		1	2	3	4	5	6
2:6	Teaching aims in international education	X	X	X	X	X	X
2:7	Teaching objectives in international education	X	X	X	X	X	X
2:8	Teaching activities in international education	-	X	-	X	X	X
2:9	Teaching outcome in international education	X	X	X	X	X	X
2:10	Teaching evaluation in international education	-	X	-	X	X	X

TET THREE

ACADEMIC DEVELOPMENT

3:1	Cross-cultural courses in international education	X	X	X	X	X	X
3:2	Seminar on world issues	X	X	X	X	X	X
3:3	Workshop on international topics	-	X	X	X	X	X
3:4	Lectures on global events	X	X	X	X	X	X
3:5	Degree concentrations	X	-	-	-	X	X
3:6	Inter-departmental courses	-	X	X	X	X	X
3:7	Required courses	-	X	-	-	X	X
3:8	Elective courses in international education	-	X	-	-	X	X
3:9	Staff development through extension	-	X	X	X	X	X

TET FOUR

ORGANIZATIONS

4:1	Committee on international education	X	X	X	X	X	X
4:2	Council on international education	X	-	X	X	X	X
4:3	Board on international education	X	X	X	X	X	X
4:4	Advisers on international education	X	-	-	X	X	X
4:5	Association on international education	X	-	-	X	X	X
4:6	Volunteer group on international education	X	X	X	X	X	X
4:7	Consortia on international education	X	X	-	X	X	X
4:8	Curriculum in other countries	X	X	-	X	X	X

TET FIVE

JOB TITLE

5:1	Vice president for international education	-	-	-	-	-	-
5:2	Dean of international education	-	X	-	-	-	-
5:3	Assistant dean of international education	X	-	-	-	-	-
5:4	Chair of international education	-	X	-	X	-	-
5:5	Professor of international education	X	-	-	-	-	-
5:6	Associate professor of international education	-	-	-	-	-	-
5:7	Assistant professor of international education	-	-	-	X	-	-
5:8	Instructor of international education	-	-	-	X	-	-
5:9	Teaching assistant of international education	X	-	-	X	-	-
5:10	Director of international education	-	X	X	X	X	X
5:11	Assistant director of international education	-	-	-	-	X	X
5:12	Coordinator of international education	-	X	X	-	X	X
5:13	Assistant coordinator of international education	-	-	-	X	X	-
5:14	Visiting professor of international education	X	-	-	-	-	-
5:15	Post doctoral fellow of international education	-	X	-	-	-	-
5:16	Consultant of international education	-	X	X	X	X	X

TET SIX

INCENTIVES

		1	2	3	4	5	6
6:1	Promotion for international teaching	X	X	-	X	X	X
6:2	Vacation	-	X	-	X	X	X
6:3	Salary increase	-	X	-	X	X	X
6:4	Recognition and awards	-	X	X	X	X	X
6:5	Sabbatical leave	X	X	-	X	X	X
6:6	Grants	X	X	-	X	X	X
6:7	Tenure approval	X	X	X	X	X	X
6:8	Peer acknowledgement	X	X	X	X	X	X
6:9	Scholarships	X	X	X	X	X	X
6:10	Teaching contracts	-	X	X	X	X	X
6:11	Teaching research contracts	-	X	-	X	X	X

TET SEVEN

RESPONSIBILITIES

7:1	Instruction to graduate students	X	X	X	-	X	X
7:2	Professional developments	-	X	X	X	X	X
7:3	Discussion classes	X	X	X	X	X	X
7:4	Innovative instructions	X	X	-	-	X	X
7:5	Working with post doctoral students	-	X	-	X	-	-
7:6	Individualized instructions	-	X	-	-	-	-
7:7	Collaborative instructions	-	X	-	-	-	-
7:8	Traditional structured teaching	X	X	-	X	-	-
7:9	Remedial graduate instruction	-	X	-	-	X	-
7:10	Curriculum development	X	X	X	X	X	X
7:11	Student evaluation	-	X	-	X	X	X
7:12	Course evaluation	-	X	-	X	-	-
7:13	Directing graduate student program	X	X	X	X	-	-
7:14	Staff development and extension	-	X	X	-	-	X

TET EIGHT

INTERNATIONAL ISSUES

8:1	Nuclear power	-	-	-	-	-	-
8:2	Food for the hungry	X	X	-	X	X	X
8:3	Agricultural assistance	X	-	X	X	X	X
8:4	Technology - transfer	X	-	X	X	X	X
8:5	Technical assistance	-	-	X	X	X	-
8:6	Causes of war	-	-	-	-	-	X
8:7	Peace in the world	X	-	-	X	-	X
8:8	Educational assistance	X	X	X	X	X	X
8:9	Economic assistance	-	-	-	X	X	-
8:10	Apartheid in South Africa	-	-	-	-	-	-
8:11	Prejudice and discrimination	X	-	-	-	-	-
8:12	Racial discrimination	X	-	-	-	-	-
8:13	United Nations organizations	-	-	-	X	-	-
8:14	Human rights	-	-	-	X	-	-
8:15	Terrorism	-	-	-	-	-	-
8:16	Population study	-	-	-	-	-	-
8:17	World communication	-	-	-	X	-	-

		1	2	3	4	5	6
8:18	People all over the world	X	X	X	X	X	X
8:19	Space exploration	-	-	-	-	-	X
8:20	International relations	X	-	X	-	X	X
8:21	International communications	-	-	-	X	X	X
8:22	Effect of media on international education	-	X	-	-	X	-
8:23	The use of technology in international education	-	X	-	X	X	X

TET NINE

PROGRAMS

9:1	Area studies	X	X	-	X	X	X
9:2	Study abroad	X	X	X	X	X	X
9:3	Student exchange	X	X	X	X	X	X
9:4	Foreign language	X	X	X	X	X	X
9:5	Orientation	X	X	X	X	X	X
9:6	Counseling	X	X	X	X	X	X
9:7	Placement programs	X	X	-	X	X	X
9:8	Cross-cultural programs	X	X	X	X	X	X
9:9	Scholar exchange	X	X	-	X	X	X
9:10	Teacher exchange	X	X	X	X	X	X
9:11	Extension programs	X	X	X	X	X	X
9:12	Staff development	X	X	X	X	X	X

TET TEN

FUNDING

10:1	State grant	X	X	X	X	X	X
10:2	Student fees	-	-	-	-	X	X
10:3	Donation from alumni	-	X	-	X	X	-
10:4	Contributions from foundations	X	X	-	X	X	-
10:5	Fund-raising	X	X	-	X	X	X
10:6	Contracts	-	X	X	X	X	X
10:7	Scholarships	X	X	-	X	X	X
10:8	Proposals	X	X	X	X	-	X
10:9	Loan	-	-	-	-	X	-
10:10	Donations from philanthropists	X	X	-	X	X	X
10:11	Budgets	-	-	X	-	-	X
10:12	Levy on in-service training	-	X	-	X	X	-
10:13	Training fund for international employees	-	X	X	X	X	X

APPENDIX B.

SELECTED LAND-GRANT UNIVERSITIES

Research Elements Taxonomy (RET) Data

RET ONE	CONSTITUENCY	1	2	3	4	5	6 ^a _b
1:1	U. S. undergraduate students	X	X	X	X	X	X ^b
1:2	U. S. graduate students	X	X	X	X	X	X
1:3	Foreign undergraduate students	X	X	X	X	X	X
1:4	Foreign graduate students	X	X	X	X	X	X
1:5	Faculty	X	X	X	X	X	X
1:6	Administration	X	X	X	X	X	X
1:7	U. S. institutions	X	X	X	-	X	X
1:8	Foreign institutions	X	X	X	-	X	X
1:9	Community businesses	X	X	X	X	X	X
1:10	Community school systems	-	X	X	X	X	X
1:11	Community ethnic groups	X	X	X	X	X	X
1:12	Community at large	X	X	X	X	X	X
1:13	State organizations	X	X	X	X	X	X
1:14	State businesses	X	X	X	X	X	-
1:15	State legislatures	-	-	X	-	-	-
1:16	State community	X	X	X	X	X	-
1:17	National organizations	X	-	-	X	X	-
1:18	National legislatures	-	X	-	X	-	-
1:19	National business associations	-	-	X	X	X	-
1:20	National foundations	-	X	-	X	X	X
1:21	United Nations agencies	-	X	-	X	X	X
1:22	Professional associations	-	-	X	X	X	-
1:23	Educational associations	-	X	-	X	-	-
1:24	International associations	-	-	-	X	X	-
1:25	International organizations	-	-	X	X	X	X

RET TWO	PURPOSE	1	2	3	4	5	6
2:1	Research philosophy in international education	X	X	X	X	X	X
2:2	Research policy in international education	X	X	X	X	X	X
2:3	Research mission in international education	X	X	X	X	X	X
2:4	Research needs in international education	X	X	X	X	X	X
2:5	Research goals in international education	X	X	X	X	X	X

^a1 = Oregon State

2 = Michigan State University

3 = Oklahoma State University

4 = Washington State University

5 = University of Idaho

6 = University of Nebraska

^b"X" = denotes observable taxonomy.

"-" = denotes unobservable taxonomy (See page 53.)

		1	2	3	4	5	6
2:6	Research aims in international education	-	X	X	X	X	X
2:7	Research objectives in international education	-	X	X	X	X	X
2:8	Research activities in international education	-	X	X	X	X	X
2:9	Research outcome in international education	X	X	X	X	X	X
2:10	Research evaluation in international education	X	X	X	X	X	X

RET THREE

ACADEMIC DEVELOPMENT

3:1	Thesis development on international education	-	X	X	X	X	X
3:2	Research with graduate students	-	X	X	X	X	X
3:3	Experimental activities	X	X	X	X	X	X
3:4	Long-term theoretical research	X	X	X	X	X	X
3:5	Empirical and quantitative research	X	X	X	X	X	X
3:6	Library research	-	X	X	X	-	-
3:7	Off-campus research	-	X	-	X	X	X
3:8	Cross-cultural research	-	X	X	X	X	X
3:9	Collaborative research	X	X	X	X	X	X
3:10	Short-term research project	X	X	-	X	X	X
3:11	Writing on international education	X	X	X	X	X	X
3:12	Cross-disciplinary research	X	-	X	X	X	X

RET FOUR

ORGANIZATIONS

4:1	Research committee	-	X	X	X	X	X
4:2	Research council on international education	X	X	X	X	-	X
4:3	Research board on international education	X	-	-	X	X	X
4:4	Research advisers on international education	-	X	-	X	X	-
4:5	Research association on international education	-	X	-	X	X	X
4:6	Research volunteer group on international education	X	X	X	X	X	X
4:7	Research consortia on international education	X	X	-	X	-	X
4:8	Research curriculum on international education	X	X	X	X	X	X

RET FIVE

JOB TITLES

5:1	Vice president for international research	-	X	-	-	-	-
5:2	Dean for international research	-	-	-	-	-	-
5:3	Assistant dean for international research	X	-	-	-	-	-
5:4	Director of research institute in international research	-	X	-	X	-	X
5:5	Professor of international education	-	-	-	-	-	-
5:6	Assistant professor of international education	-	-	-	-	-	-
5:7	Associate professor of international education	-	-	-	-	-	-
5:8	Instructor of international education	-	-	-	X	-	-
5:9	Post doctoral researcher in international education	-	X	-	-	-	-
5:10	Research fellow in international education	-	-	X	X	X	-
5:11	Research assistant in international education	X	X	-	X	X	X
5:12	Visiting researcher in international education	X	X	X	X	X	-
5:13	Research scholar in international education	-	-	-	X	X	-
5:14	Research associate in international education	-	X	-	X	-	-
5:15	Research coordinator in international education	-	X	-	X	-	-

		1	2	3	4	5	6
5:16	Research evaluator in international education	X	X	-	X	X	-
5:17	Research supervisor in international education	-	X	-	X	-	-
5:18	Research advisor in international education	-	-	-	-	-	X
5:19	Research consultant in international education	X	X	-	X	-	X
5:20	International evaluator in international education	X	X	X	X	-	X

RET SIX

INCENTIVES

6:1	Promotion	X	X	-	X	X	X
6:2	Opportunity for overseas research	X	X	X	X	X	X
6:3	Vacation	X	X	-	X	X	X
6:4	Salary increase	-	X	-	X	X	X
6:5	Recognition and awards	-	X	X	X	X	X
6:6	Sabbatical	-	X	-	X	X	X
6:7	Research grants	X	X	X	X	X	X
6:8	Tenure approval	-	-	X	X	X	X
6:9	Peer acknowledgement	X	X	X	X	X	X
6:10	Professional presentations	-	X	X	X	X	X
6:11	Research scholarships	X	X	-	X	X	X
6:12	Research contracts	X	X	-	X	X	X
6:13	Funding research proposals	X	X	-	X	X	X
6:14	Research time privileges	X	-	-	X	X	X

RET SEVEN

RESPONSIBILITIES

7:1	Long term theoretical research in international education	X	X	X	X	X	X
7:2	Empirical research in international education	X	X	X	X	X	X
7:3	Quantitative research in international education	X	X	X	X	X	X
7:4	Specialized research in international education	X	X	X	X	-	X
7:5	Overseas research in international education	X	X	X	X	-	X
7:6	Multiproject research in international education	X	X	X	X	X	X
7:7	Collaborative research in international education	X	X	-	X	-	X
7:8	Short-term research	X	X	X	X	-	X
7:9	Editing and reviewing	-	X	X	X	-	X
7:10	Publication of text	-	X	X	X	-	X
7:11	Evaluation of international education	X	X	-	-	X	X
7:12	Need assessment in international education	-	X	X	X	X	X
7:13	Grant proposal writing	X	X	-	-	X	X
7:14	Professional preparation	-	X	X	X	-	X
7:15	Data analysis	X	X	X	X	-	X
7:16	Comparative research	-	X	X	X	-	X
7:17	Off campus research	X	X	-	X	-	X
7:18	Computer research	X	X	X	X	-	X
7:19	Cross-cultural research	X	X	X	X	-	X
7:20	Staff development in international research	X	X	X	X	-	X
7:21	Research extension on international education	X	X	X	X	-	X

RET EIGHT

INTERNATIONAL ISSUES

		1	2	3	4	5	6
8:1	Research on Nuclear power	-	-	-	X	-	-
8:2	Research on food for the hungry	X	X	X	X	X	X
8:3	Research on agricultural assistance	X	-	X	X	X	X
8:4	Research on technological transfer	X	-	X	X	X	X
8:5	Research on technical assistance	-	-	X	X	X	X
8:6	Research on causes of war	-	-	-	X	-	-
8:7	Research on peace in the world	-	-	-	X	-	-
8:8	Research on educational assistance	X	X	X	X	X	X
8:9	Research on economic assistance	-	-	X	-	X	X
8:10	Research on apartheid in South Africa	-	-	-	X	-	-
8:11	Research on prejudice and discrimination	X	-	-	X	-	-
8:12	Research on racial discrimination	X	X	-	X	-	-
8:13	Research on United Nations Organization	-	-	X	-	X	-
8:14	Research on human rights	-	-	-	-	-	-
8:15	Terrorism research	-	-	-	-	-	-
8:16	Population study research	-	-	-	-	-	-
8:17	World communication research	-	-	-	-	-	-
8:18	People all over the world research	X	-	X	-	-	X
8:19	Space exploration research	-	-	-	-	-	-
8:20	International relations research	X	X	-	-	X	X
8:21	International communications research	-	X	-	-	-	X
8:22	Effect of media on international education	X	-	-	-	X	-
8:23	The use of technology in international education	X	-	X	-	X	X

RET NINE

PROGRAMS

9:1	Area studies program research	X	X	-	X	X	X
9:2	Study abroad program research	X	X	X	X	X	X
9:3	Student exchange program research	X	X	X	X	X	X
9:4	Foreign language program research	X	X	X	X	X	X
9:5	Orientation program research	X	X	X	X	X	X
9:6	Counseling program research	X	-	-	X	X	X
9:7	Placement program research	X	-	-	X	X	X
9:8	Cross-cultural program research	X	X	X	X	X	X
9:9	Scholar exchange program research	X	X	X	X	X	X
9:10	Teacher exchange program research	X	X	X	X	X	X
9:11	Extension program research	X	X	X	-	-	X
9:12	Staff development program research	X	X	X	-	-	X

RET TEN

FUNDING

10:1	State grant	X	X	X	X	X	X
10:2	Student fees	-	X	-	X	-	-
10:3	Donations from alumni	-	X	-	X	X	X
10:4	Contributions from foundations	X	X	X	X	X	X
10:5	Fund-raising	-	X	-	-	-	-
10:6	Contracts	X	X	X	X	X	X

	1	2	3	4	5	6
10:7 Scholarships	X	X	X	X	X	X
10:8 Proposal	X	X	X	X	X	X
10:9 Loan	X	-	-	X	-	-
10:10 Donation from philanthropists	-	X	-	X	X	X
10:11 Budget	X	X	-	X	X	X
10:12 Levy on in-service	-	X	-	X	X	X
10:13 International research training fund	X	X	X	X	X	X

APPENDIX C.

SELECTED LAND GRANT UNIVERSITIES

Service Elements Taxonomy (SET) Data

SET ONE	CONSTITUENCY	1	2	3	4	5	6 ^a
1:1	U.S. undergraduate students	X	X	X	X	X	X ^b
1:2	U.S. graduate students	X	X	X	X	X	X
1:3	Foreign undergraduate students	X	X	X	X	X	X
1:4	Foreign graduate students	X	X	X	X	X	X
1:5	Faculty	X	X	X	X	X	X
1:6	Administration	X	X	X	X	X	X
1:7	U.S. institutions	X	X	X	X	X	X
1:8	Foreign institutions	X	X	X	X	X	X
1:9	Community businesses	X	X	X	X	X	X
1:10	Community school systems	-	X	X	X	X	X
1:11	Community ethnic groups	X	X	X	X	X	X
1:12	Community at large	X	X	X	X	X	X
1:13	State organizations	X	X	X	X	X	X
1:14	State businesses	X	X	X	X	X	X
1:15	State legislatures	-	-	-	X	X	X
1:16	State communities at large	-	-	-	X	X	X
1:17	National organizations	-	-	-	X	X	X
1:18	National legislatures	-	-	-	X	X	X
1:19	National business associations	-	-	-	X	X	X
1:20	National foundations	-	-	-	X	X	X
1:21	United Nations agencies	-	-	-	X	X	X
1:22	Professional associations	-	X	-	X	X	X
1:23	Educational associations	-	-	-	X	X	X
1:24	International associations	X	-	X	X	X	X
1:25	International organizations	X	-	X	X	X	X

SET TWO	PURPOSE	1	2	3	4	5	6
2:1	Service philosophy in international education	X	X	X	X	X	X
2:2	Service policy in international education	X	X	X	X	X	X
2:3	Service mission in international education	X	X	X	X	X	X
2:4	Service needs in international education	X	X	X	X	X	X
2:5	Service goals in international education	X	X	X	X	X	X

- ^a1 = Oregon State
 2 = Michigan State University
 3 = Oklahoma State University
 4 = Washington State University
 5 = University of Idaho
 6 = University of Nebraska

- ^b"X" = denotes observable taxonomy
 "-" = denotes unobservable taxonomy (See page 53.)

		1	2	3	4	5	6
2:6	Service aims in international education	X	X	X	X	X	X
2:7	Service objectives in international education	X	X	X	X	X	X
2:8	Service activities in international education	X	X	X	X	X	X
2:9	Service outcome in international education	X	X	X	X	X	X
2:10	Service evaluation in international education	X	X	X	X	X	X

SET THREE

ACADEMIC DEVELOPMENT

3:1	Service to faculty and staff	X	X	X	X	X	X
3:2	Service to helping professions	X	X	X	X	X	X
3:3	Service to charitable organizations	X	X	X	X	X	X
3:4	Service to international agencies	X	X	X	X	X	X
3:5	Service in international agencies	X	X	X	X	X	X
3:6	Increasing international awareness	X	X	X	X	X	X
3:7	Personnel policy in international education	-	X	-	X	X	X
3:8	Professional skill development	X	-	X	X	X	X
3:9	Political influence in international education	X	X	-	X	X	X
3:10	International housing systems	X	X	X	X	X	X
3:11	Promotion of international culture	X	X	X	X	X	X
3:12	Counseling services in international education	X	-	-	X	X	X
3:13	Placement services in international education	X	X	-	X	X	X
3:14	Volunteer services in international education	X	X	X	X	X	X

SET FOUR

ORGANIZATION

4:1	Foreign student advisory council	X	X	X	X	X	X
4:2	International council	X	X	-	X	X	X
4:3	International committee	-	X	X	X	X	X
4:4	International studies committee	-	X	X	X	X	X
4:5	International board	-	X	-	X	X	X
4:6	International advisers	X	-	-	X	X	X
4:7	International association	-	X	X	X	X	X
4:8	International group	X	X	X	X	X	X
4:9	International volunteers	X	X	X	X	X	X

SET FIVE

JOB TITLE

5:1	Executive vice president	-	-	-	-	-	-
5:2	Vice president	-	-	-	-	-	-
5:3	Dean	-	X	-	X	X	-
5:4	Coordinator	X	X	X	X	X	X
5:5	Director	X	X	X	X	X	X
5:6	Assistant director	X	X	-	-	X	X
5:7	Adviser	X	X	X	X	X	X
5:8	Administrative officer	-	X	-	-	-	X
5:9	Secretary	-	X	-	-	-	-
5:10	Clerk	-	-	-	-	-	-
5:11	Consultant	X	X	X	-	X	X
5:12	Senior secretary	-	X	-	-	-	-
5:13	Senior account clerk	-	X	-	-	-	-

		1	2	3	4	5	6
5:14	International student counselor	-	-	-	-	-	X
5:15	International programmer	-	-	-	-	-	-

SET SIX

INCENTIVES

6:1	Promotion	X	X	X	X	X	X
6:2	Opportunities for overseas services	X	X	X	X	X	X
6:3	Vacation	X	X	X	X	X	X
6:4	Salary increase	-	X	-	X	X	X
6:5	Recognition and awards	X	X	-	X	X	X
6:6	Sabbatical	X	X	-	X	X	X
6:7	Research grants	X	X	-	X	X	X
6:8	Tenure approval	X	X	-	X	X	X
6:9	Peer acknowledgement	X	X	-	X	X	X
6:10	Professional presentations	X	X	-	X	X	X
6:11	Research scholarships	X	X	-	X	X	X
6:12	Research contracts	X	X	X	X	X	X
6:13	Funding research proposals	X	X	-	X	X	X
6:14	Research time privileges	X	X	-	X	X	X

SET SEVEN

RESPONSIBILITIES

7:1	Decision-making	X	X	X	X	X	X
7:2	Information clearing house	X	X	X	X	X	X
7:3	Personal visibility	X	X	X	X	X	X
7:4	Directing departmental program	X	X	-	-	X	X
7:5	Directing campus-wide program	X	X	X	X	X	X
7:6	Dealing with housing issues	X	X	X	X	X	X
7:7	Providing information on immigration requirements	X	X	X	X	X	X
7:8	Conference planning	X	X	X	X	X	X
7:9	Administrative functions	X	X	X	X	X	X
7:10	Securing and distribution of resources	X	X	X	X	X	X
7:11	Non academic international services	X	X	X	X	X	X
7:12	Handling bureaucratic details	X	X	X	X	X	X
7:13	Attention to justice on the campus	X	X	-	X	X	X
7:14	Institutional and program evaluation	-	X	-	X	X	X
7:15	Admission of students	-	X	-	X	X	X
7:16	International affairs governance	-	X	-	X	X	X
7:17	Designing programs for international needs	X	X	X	X	X	X
7:18	Promoting social integration	X	X	X	X	X	X
7:19	Keeping up-to-date in the field	X	X	X	X	X	X
7:20	International career guidance	X	X	X	X	X	X
7:21	Attending to student personal problems	X	X	X	X	X	X
7:22	Consultation with other institutions	X	X	X	X	X	X
7:23	Consultation with government agencies	X	X	X	X	X	X
7:24	Preparation of budgets	X	X	X	X	X	X
7:25	Provision of rooms for activities	X	X	-	X	X	X
7:26	Extension work on international affairs	X	X	X	X	X	X
7:27	Staff development	X	X	X	X	X	X

SET EIGHT

INTERNATIONAL ISSUES

		1	2	3	4	5	6
8:1	International housing services	X	X	X	-	X	X
8:2	Foreign students insurance services	X	X	X	X	X	X
8:3	Immigration services	X	X	X	X	X	X
8:4	Placement opportunities	X	X	X	X	X	X
8:5	Foreign student finances	X	X	X	X	X	X
8:6	Graduation requirements	X	X	-	X	X	X
8:7	Recognition and awards	X	-	-	X	X	X
8:8	Academic standard	X	X	X	X	X	X
8:9	International alumni	-	X	-	X	-	X
8:10	International women services	X	X	X	-	X	X
8:11	Career services	X	X	X	-	X	X
8:12	Inter-institutional services	X	X	X	X	X	X

SET NINE

PROGRAMS

9:1	Cultural programs	X	X	X	X	X	X
9:2	International peace program	X	X	X	X	X	X
9:3	International awareness program	X	X	X	X	X	X
9:4	International orientation program	X	X	X	X	X	X
9:5	International career program	X	X	X	X	X	X
9:6	International fair program	X	X	-	X	X	X
9:7	International fund-raising program	X	X	-	X	X	X
9:8	International host family	X	X	X	X	X	X
9:9	International personnel exchange program	X	X	X	X	X	X
9:10	International student exchange program	X	X	X	X	X	X
9:11	International workshop program	X	X	X	X	X	X
9:12	International internship program	-	X	X	X	X	X
9:13	International staff development	X	X	X	X	X	X
9:14	International volunteer program	X	X	X	X	X	X
9:15	International practical experience	X	X	X	X	X	X
9:16	International extension	X	X	X	X	X	X

SET TEN

FUNDING

10:1	State grant	X	X	-	X	X	X
10:2	Student fees	X	X	-	X	X	X
10:3	Donation from alumni	X	X	X	X	X	X
10:4	Contribution from foundations	X	X	-	X	X	X
10:5	Fund-raising	X	X	-	X	X	X
10:6	Contracts	X	X	X	X	X	X
10:7	Scholarships	X	X	X	X	X	X
10:8	Proposals	X	X	X	X	X	X
10:9	Loan	-	-	-	-	X	X
10:10	Donations from philanthropists	X	X	X	X	X	X
10:11	Budget	X	X	X	X	X	X
10:12	Levy on in-service	-	X	-	X	X	X
10:13	International service fund	-	X	-	X	X	X