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Stou's Distance Teaching: Its Contribution to Higher Education and to National Development in Thailand

Visutsri Chanprasert
Loyola University Chicago

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STOU'S DISTANCE TEACHING:
ITS CONTRIBUTIONS TO HIGHER EDUCATION
AND TO NATIONAL DEVELOPMENT IN THAILAND

by

VISUTSRI CHANPRASERT

A Dissertation Submitted to the Faculty of the Graduate
School of Education of Loyola University of Chicago in
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Doctor of Education

MAY

1987

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VITA

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The STOU's Distance Teaching:

Its Contributions to Higher Education

and to National Development in Thailand

Distance education at the university level, for instance, correspondence study, university extension programs, open university (autonomous distance teaching institution), and external studies, is an alternative approach to higher education. It is distinguished from conventional education in its mode and means of teaching where teachers and learners communicate at a distance through various media, basically correspondence. Although independent study is emphasized, the institutions also provide support services such as tutoring and counseling to the students.

The purposes of this study were:

1. to analyze distance education in terms of its philosophy, its theories, and its characteristics which have influence on its practices;
2. to examine the distance teaching system of the STOU (Sukhothai Thammathirat Open University) in Thailand;
3. to evaluate and assess:
 - a) the contribution of the STOU to higher education in Thailand in terms of: (1) its accessibilities to equalize the educational opportunity in higher education; (2) its teaching and learning such as the use of multimedia approach, independent study, the use of a course team to produce high quality learning materials, changes of attitudes that students can learn while they are in full-time employment; (3) its

structure and management: the use of academic staffs from different institutions as a course team to design learning materials or as tutors or counselors promotes cooperation among higher education institutions as well as makes efficient use of human resources. The use of existing facilities such as broadcasting stations, local educational establishments (for study centers), also makes cost efficiency possible.

b) the contribution of the STOU to national development, in terms of: (1) manpower needs: programs offered are relevant to social and national needs, especially the non-degree training programs for personnel development; (2) human resources development: availability of educational opportunity through distance teaching, either degree or non-degree programs, makes education a lifelong process, promotes a "learning society," improves the quality of life as well as economic conditions of the public, which thereby promotes national development; (3) national identity: programs related to national art and cultural preservation to strengthen national ethics and identity.

CHAPTER I

INTRODUCTION

After World War II, great changes took place around the world. Changes in the economic, social, and political environments led to educational changes. Many developing countries began to use education as an instrument for national development. The development process involved programs to achieve basic literacy as well as to meet manpower needs.

In the 1960s, there was an educational expansion at all levels. It was to democratize educational opportunity, to level social inequalities, and as an essential step to improve the quality of life of the people. A great demand for higher education came both from the public and from the government. The public saw it as a ladder toward their economic as well as social mobility, while the governments saw it as an essential step toward egalitarianism and toward national development (in the developing countries). At the same time, the education of adults also developed. According to Long, this was, in part, due to three areas of research in adult and continuing education:

The first research concerns the adult's ability to learn. This research has progressively enhanced the perception of the adult's learning ability over the past 50 years. The second area includes the numerous participation studies that clearly reveal substantial rates of adult participation in educational activity, credit and non credit. The third area addresses and legitimizes the self-directed

learning activity of adults.¹

The Growth of Distance Education

Distance education, for instance, Correspondence Study, University Extension Programs in the United States, Open University in the United Kingdom, and External Studies in Australia, emerged as one alternative to respond to the needs in adult education and in higher education. As indicated by many writers, three major trends which have stimulated the expansion of distance education systems have been the *political*, *economic*, and *social*. The first, the political, has been the move towards egalitarianism and a greater educational opportunity for every individual, and a move away from educational elitism. Perry asserted:

One of the causes for the rapid growth of distance education (for adults) is the "deep-seated dissatisfaction" (primarily outside the United States) with the traditional higher education structure which favors only the young and the privileged.²

Secondly, the economic, with the move towards a highly cost-conscious provision of education; towards an ideal of the most "effective" education for the largest number of people at the lowest possible cost. It has been shown that "distance education is a relatively inexpensive way to respond to pressure occasioned by desires for individual fulfillment and by social unrest."³ Thirdly, the social, where there is a great

¹ Huey B. Long, *Adult and Continuing Education: Responding to Change* (New York: Teachers College Press, 1983), p. 61.

² Walter Perry. *Teaching and Learning at a Distance: The Experience of the Britain's Open University* (Bethesda, Md.: ERIC Document Reproduction Service, ED 162 171, 1978), p. 4.

³ James Zigerell. *Distance Education: An Information Age Approach to Adult Education* (Bethesda, Md.: ERIC Document Reproduction Service, ED 246 311, 1984), p. 8.

demand from society which is due to the increasing pressure from all types of social change in careers as well as in personal life. Also, people believe that education furthers career change, improves family and personal life, and enriches leisure time. Moreover, studies show that, to a large extent, the desire for credentials is the driving force behind open and distance learning projects.

Besides, Zigerell has observed:

The growth of distance education is the result of an historical incidence: a public demand for more educational opportunities for adults at a time when media, especially electronic media, capable of delivering instruction to people, wherever they may be, are proliferating.⁴

The British Open University

Changes in educational thought -- deschooling, open learning, distance learning, continuing education, lifelong education, as well as changes in educational technology such as radio and television broadcasting, and audio-video cassettes, made a great contribution to the establishment of the British Open University in 1971. In addition, the success of the Chicago Television College's broadcasting programs and the experiment in multimedia learning system at the University of Wisconsin in the 1960s had a great impact on the distance teaching system at the British Open University. Hawkrige has asserted that "the British Open was willing to borrow ideas from Chicago Television College and the University of Wisconsin's extension program."⁵ This institution employs the multimedia teaching approach, which incorporates the uses of

⁴ Ibid., p. 5.

⁵ David G. Hawkrige, "The Open University," *Educational Record* 64:1 (1983): 28.

correspondence, broadcasting, video/audio cassettes, computers (network and micro), telephones, and home experiment kits.

The British Open University was established as an alternative to respond to the needs of the society for higher education. Perry has noted:

The concept of the Open University evolved from the convergence of three major postwar educational trends. The first of these concerns development in the provision for adult education, the second the growth of educational broadcasting, and the third the political objective of promoting the spread of egalitarianism in education.⁶

Houle has observed that "the founding of the British Open University was the most significant movement in the history of higher education since the establishment of land-grant colleges, and the university extension movement in the United States in the 1860s."⁷ Since each provided a learning opportunity for large numbers of people for whom higher education had never been available.

Success of the British Open University has led to world interest in the distance learning concept. It has already inspired the creation of a number of similar institutions in both the developed and developing nations, though different countries emulate its features in varying degree, depending upon their national needs and resources. In general, the purposes of the distance education in the developed nations are to give opportunity to the disadvantaged, mature students, or to those who were denied formal higher education early in life; while in most devel-

⁶ Walter Perry, *The Open University: History and Evaluation of a Dynamic Innovation in Higher Education* (San Francisco: Jossey-Bass Publishers, 1977), p. 1.

⁷ C. Houle, Forward to American Edition, *The Open University: History and Evaluation of a Dynamic Innovation in Higher Education*, by Walter Perry (San Francisco: Jossey-Bass Publishers, 1977), p. vi.

oping nations, on the other hand, the institutions are to serve the young for whom there are not sufficient places in traditional colleges and universities.

Thus, distance education has become an international movement. It has achieved international recognition and even acclaim in the twentieth century, particularly in the last decade. This is due in large measure, to the emulation of the British Open University and its distinctive multimedia system in many parts of the world. Zigerell has pointed out that "indeed, it is the one institution whose astounding success has furthered distance education as an international movement in the Western, Socialist, and Third Worlds."⁸

In the 1970s and 1980s, with the success of the British Open University as an inspiration, a number of open universities (autonomous distance teaching institutions) have been established throughout the world. Others are in the process of formation. Those already established include UNED in Spain, Athabasca in Canada, the Fernuniversitat in West Germany, UNA in Venezuela, Universidad Estatal a Distancia in Costa Rica, the Free University of Iran, the Netherlands Open University, and the Sukhothai Thammathirat Open University in Thailand among others.

In Thailand, the Sukhothai Thammathirat Open University (STOU), was established in 1980. Unlike the "open admission" employed by the Thammasart University in 1933-1960, and the Ramkhamhaeng University, established in 1971, this institution employs the multimedia teaching approach. Srisa-an, the rector of the STOU, identified two goals of the

⁸ Zigerell, *op. cit.*, p. 5.

STOU as follows:

One, to give to those people who are now past the conventional learning period of their lives a second chance at tertiary education the first time around. Thus people in all walks of life are given an opportunity to enrich their knowledge and improve their professional competence. Two, to provide an opportunity for new school leavers who cannot obtain entrance to a conventional university a chance at higher education they would otherwise miss.⁹

The overall objective is "to promote the concept or process of lifelong education that will improve the quality of life, increase national productivity, and thereby promote social equity in Thailand."¹⁰

Promotion of Knowledge and Understanding

Harris has observed:

Distance education is a hitherto neglected area of education, a relatively unfamiliar aspect of teaching and learning....But for many others, it represents perhaps one of the most significant and promising growth areas in education in a world which is faced by so many urgent demands for expansion and for social or economic development.¹¹

Distance education has become so significant a movement that considerable effort has been given to articulating its theoretical foundations. For instance, there are theories of autonomy and independence (Charles Wedemeyer and Michael Moore), theories of interaction and communication (B. Holmberg, John Baath, and David Sewart), and a theory of

⁹ "STOU, Bangkok, Thailand," *The Nation Review* (Bangkok), 23 July 1980, pp. 1, 3.

¹⁰ Iam Chaya-Ngam, "STOU: Thailand Open University," in *Comparative Approaches to Higher Education--Curriculum, Teaching, and Innovations in an Age of Financial Difficulties* (Bethesda, Md.: ERIC Document Reproduction Service, ED 247 783, 1983), p. 152.

¹¹ W.J.A. Harris, and J.D.S. William, *A Handbook on Distance Education* (Bethesda, Md.: ERIC Document Reproduction Service, ED 162 053, 1977), p. vi.

industrialization (Otto Peters). Moore has asserted:

The theory has been developed as a tool, not as an end in itself, and its primary purpose as a tool is to define a field which was previously ignored,....as a starting place, as a heuristic device, and if it is then responsible for generating research by suggesting ideas, or even by arousing disbelief and resistance, it will have served its purpose.¹²

Indeed, there are signs of its new maturity as a field of study. The growth of distance teaching institutions has been accompanied by the development of a body of knowledge about the principles and procedures that will make this form of learning a success.

To promote the knowledge of distance education around the world, there are cooperative endeavors among countries. There are: a) conferences, organized every few years by The International Council for Correspondence Education (ICCE) to break down barriers of distrust and to establish lines of communication and growing professional respect, and the Conference on the Education of Adults at a Distance (CEAD), convened by the British Open University to deliberate its first ten years of existence; b) publications such as *Distance Education*, a journal launched in 1980 by the Australia and South Pacific External Studies Association, *Teaching at a Distance*, a journal which aims to carry articles about the theory and practice of distance education, especially as those practiced in the Open University; c) the Centre for International Cooperation Services (CICS) was set up in 1976, replacing the University Consultancy Services, offering services concerned with the various aspects of planning and implementing distance systems, i.e. con-

¹² Michael Moore, "On a Theory of Independent Study," in *Distance Education: International Perspectives*, eds. D. Sewart et al. (New York: St. Martin's Press, 1983), p. 90.

sultancy advice, course-design workshops, information documentation exchanges (Information Resources Unit), etc. It also carries out practical research and development studies; d) the International Documentation Center for Distance Learning, created in 1983 by the United Nations University at the British Open University, maintains a document center that monitors developments all over the world. In addition, proposals have been made for a network of distance learning institutions, sponsored by the United Nations University to bring educational programs, especially those concerned with bringing modern technology from the developed to the developing countries, and making them available to any countries at relative low costs.

Purposes of the Study

Regarding distance education as a significant movement in higher education around the world, and a significant trend as a field of study, the purposes of this study are:

1. to analyze distance education in terms of its philosophy, its theories, and its characteristics, which have influence on its practices;

2. to examine the distance teaching system of the STOU (Sukhothai Thammathirat Open University) in Thailand, which uses multimedia teaching approaches such as correspondence, broadcasting, audio/video cassettes, telephones, etc., supplemented with support services such as tutoring and counseling services, including practical workshops for certain courses, to provide education for the masses, especially working adults and those in the rural areas who cannot access the conventional university;

3. to assess and evaluate the contribution of the STOU to higher education in Thailand in terms of:

- (1) its accessibility to certain target groups, such as working adults, people in the rural areas, people of different socioeconomic backgrounds, people of different educational backgrounds, in order to equalize educational opportunity in higher education;
- (2) new approach in teaching and learning: a) the use of multimedia approach in teaching, gearing for mass education, and for independent study; b) the use of a course team which are composed of experts in various fields from different institutions, academics as well as persons from the business sector, to design learning materials of high quality; c) changes in attitudes about work and study: the distance teaching approach makes it possible for students to learn while they are in full-time employment.
- (3) structure and management: the use of academic staffs from different institutions and experts from the business sector as course teams or tutors or counselors promote cooperation among higher education institutions as well as ensuring human resources are used efficiently. The use of existing facilities such as broadcasting stations, local educational establishments for study centers, likewise, make cost efficiency possible.

4. to assess and evaluate the contribution of the STOU to national development in terms of:

- (1) manpower needs: programs offered are relevant to social

and national needs, especially the non-degree training programs for personnel development offered to government officials as well as to the business sector;

- (2) human resources development: the availability of educational opportunity through distance teaching, such as correspondence, radio and television programs, and so forth, makes it possible for people anywhere in the country at any times of their life, with different educational backgrounds, to learn according to their own needs. They can enroll in degree or non-degree programs to upgrade their knowledge, for professional competence, or for their own personal fulfillment. Since the general public can also access to the broadcasting programs, this educational accessibility makes education a lifelong process, promotes a learning society, improves the quality of life, as well as economic conditions of the public, and thereby promotes national development.
- (3) national identity: programs, related to national art and cultural preservation, strengthen national ethics and identity.

Definition of Terms

Adult Education

Adult education can be referred to as any learning activity or program deliberately designed for adults. It can be non-vocational, vocational, general, formal, non-formal and community education and is not restricted to any particular level. At the Unesco World Conference

in Tokyo in 1972, adult education was defined as:

a process whereby persons who no longer attend school on a regular or full time basis, undertake sequential and organized activities with the conscious intention of bringing about changes in information, knowledge, understanding or skills, appreciation and attitudes, or for the purpose of identifying or solving personal problems.¹³

Continuing Education

Continuing Education can be referred to as any learning opportunities which are taken up after full-time compulsory schooling has ceased. These can be full or part-time and include both vocational and non-vocational study. However, these learning opportunities do lead to certain types of certification. Legge also considered that "it also takes account of the developing appreciation of adult education as part of a process which extends from the immediate post-statutory education period throughout life."¹⁴

Correspondence Study

Correspondence Study is a study based primarily on printed materials with supporting contact through written letters or exercises. It is considered as an essential part of most forms of distance education. However, as correspondence study has developed during the past decade, Harris has observed:

There has grown a well-established practice of supplementing the correspondence by occasional lectures and classes, intermittent tutorial sessions, residential courses and finally, all the growing battery of available technical aids. These had for long included

¹³ Unesco, *A Retrospective International Survey of Adult Education* (Unesco/Confedat 4, 1972), p. 24.

¹⁴ Derek Legge, *The Education of Adults in Britain* (Milton Keynes: The Open University Press, 1982), p. 8.

simple practice materials, slides, disc records, photographs, and (later) telephone conversation, audio-tapes and other items which could be sent over a distance....The most powerful allies have undoubtedly been the broadcasting services, radio and television.¹⁵

Distance Education

Distance education is an alternative educational approach where teachers and learners communicate at a distance through technical media. The technical media used are mostly based on correspondence. However, broadcasting services such as radio and television are becoming more powerful not merely as an aid in teaching but also a dominating factor in a distance education system. Other media used are audio/video cassettes, telephone tutoring, telephone conferencing, and computers. Perry refers to distance education as:

Teaching and learning techniques which make use of communication technologies and which do not, therefore, depend upon traditional face-to-face encounters between pupil and teacher. Where any face-to-face element is included it is usually restricted to a remedial role rather than being part of the routine programme.¹⁶

Thus, distance education can be referred to as correspondence study in both developed and developing countries, home study or independent study in the United States, external studies in Australia, and open university (an autonomous distance teaching university using multimedia teaching approach) in Great Britain and in other countries emulating the British model.

¹⁵ Harris, op. cit., p. 9.

¹⁶ Walter Perry, *The State of Distance Learning Worldwide* (Bethesda, Md.: ERIC Document Reproduction Service, ED 254 201, 1984), p. 6.

Independent Study

Independent Study is an individualized learning program which offers varying degrees of freedom in the self-determination of goals and activities, and in starting, stopping and pacing. Teachers and learners carry out their essential tasks and responsibilities apart from one another. They communicate in a variety of ways for the purposes of freeing internal learners from inappropriate class pacing or patterns in their own environments. The most important element in independent study is "to develop the capacity to carry on self-directed learning, the ultimate maturity required of the educated person."¹⁷

Actually, the term "independent study" can be identified with "distance education". Wedemeyer has argued:

Correspondence study, home study, distance education; and radio education, television teaching -- in fact all forms of mediated instruction (correspondence is a medium)-- belong to a larger, generic class which we in the U.S. tend to call "independent study."¹⁸

He also observed that the term "independent study" is used because it "emphasizes teaching and learning rather than medium or distance."¹⁹

¹⁷ Charles A. Wedemeyer, "Independent Study," in *Encyclopedia of Education*. ed. Lee C. Deighton (New York: MacMillan Company, 1971), 4:550.

¹⁸ Charles A. Wedemeyer, *Implication of Open Learning for Independent Study* (Bethesda, Md.: ERIC Document Reproduction Service, ED 112 766, 1975), p. 9.

¹⁹ *Ibid.*, p. 9.

Informal Education

Informal Education is defined by Coombs as:

The truly lifelong process whereby every individual acquires attitudes, values, skills and knowledge from daily experience, and the educative influences and resources in his or her environment - from family and neighbors, from work and play, from the market place, the library and the mass media....for the most part this process is relatively unorganized and unsystematic....yet it unquestionably accounts for a very high proportion of all that any person accumulates in a Lifetime.²⁰

Lifelong Education

Lifelong education is defined by Legge as "self-directed growth which is promoted not only for the individual benefits but also for the social implications of creating a society of free, lifelong learners."²¹ It is an educational philosophy where education is being planned as "something which will be experienced by people in an individually on-going, though discontinuous way, over the whole of their lives - and which will correspond with their emerging vocational, social and personal aspirations."²² It includes "formal, non-formal and informal patterns of learning throughout the life cycle of an individual for the conscious and continuous enhancement of the quality of life, his own and that of his society."²³

²⁰ Philip H. Coombs, *New Paths to Learning for Rural Children and Youth* (New York: The International Council for Educational Development, 1973), p. 10-11.

²¹ Legge, op. cit., p. 5.

²² J.A. Simpson, *Permanent Education* (Paris: Council of Europe, 1970), p. 343.

²³ R.H. Dave, ed., *Foundations of Lifelong Education* (New York: Pergamon, 1976), p. 11.

Nonformal Education

It is defined by Coombs as:

Any organized, systematic, educational activity, carried on outside the framework of the formal system, to provide selected types of learning to particular subgroups in the population, adults as well as children. Thus defined nonformal education includes, for example, agricultural extension and farmer training programs, adult literacy programs, occupational skill training given outside the formal system, youth clubs with substantial educational purposes, and various community programs of instruction in health, nutrition, family planning, cooperatives, and the like.²⁴

Open Learning System

Open Learning System is an alternative to formal, full-time study in the post-secondary institution. It offers opportunities to part-time or remote students or to anyone in need of additional training or education. Its aim is "to redress social and educational inequality and to offer opportunities not provided by conventional colleges and universities."²⁵ The system underlines the freedom of the learners. As noted by Wedemeyer:

It comprises to a greater or lesser extent efforts to expand the freedom of the learners--in admissions, in selection of courses, in adaptation of the curriculum to the individual, and freedom in time as well as spatial aspects (i.e. learners permitted to start, stop, and proceed at their own pace and convenience)-- the ultimate freedom -- learner goal selection, reaching the learner where he is, in his own environment and situation, on his own terms, and involving him in the evaluation of achievement of the goals that he has selected.²⁶

²⁴ Philip H. Coombs and Manzoor Ahmed, *Attacking Rural Poverty* (Baltimore: Johns Hopkins University Press, 1974), p. 8.

²⁵ Norman I. McKenzie, *Open Learning: Systems and Problems in Post-Secondary Education* (Paris: Unesco Press, 1975), p. 11.

²⁶ Charles A. Wedemeyer, "The 'Open' School," *Educational Technology*, 12:1 (January 1972): 65-68.

Open University

Open University is one approach of distance education at the university level. Kay and Rumble have defined it as:

an autonomous institution established solely and specifically for external students, using a variety of combinations of distance-teaching methods to provide specially prepared multi-media courses, and with formal responsibility for evaluation and accreditation.²⁷

The first autonomous distance teaching institution was Britain's Open University. The teaching, here, usually emphasizes the quality of the learning packages, produced either by course teams or by experts in particular fields, facilitating independent study. However, supporting services such as tutoring and counseling are also provided.

The "openness" of the system is referred to: a) entry: no admission requirements; b) place: with no campus or class attendance; c) method: the use of any communication medium that promotes its educational purposes.

Conclusion

Distance education, i.e. correspondence study, open university, university extension programs, external studies, has proliferated since the 1960s. This was due to the demand of the public and to the educational thought -- lifelong education where education is a lifelong process, as a response to technological and social changes. It is also at the same time that educational technology, especially radio and television broadcasting is well developed.

²⁷ A. Kaye and G. Rumble, "Analyzing Distance Learning Systems," in *Education of Adults at a Distance: A Report of the Open University's Tenth Anniversary International Conference*. ed. Michael Neil (London: Kogan Page, Ltd., 1981), p. 229.

Many countries have used distance education as a response to three major trends: a) political: to equalize educational opportunity to the masses, b) economic: to provide education with minimum costs to a large number of people, and c) social: to respond to social demand in higher education for career or personal development. In the 1970s, with the success of the British Open University, many institutions around the world, including STOU in Thailand, have emulated its system. In the past decade, distance education has become a significant international movement in higher education.

Chapter two will examine distance education in terms of its theories and its characteristics which have influenced its practices.

Chapter three will examine the higher education in Thailand, the system of the STOU, an open university in Thailand, in terms of its development, objectives, and characteristics such as curriculum, teaching and learning, and its students.

Chapter four will assess the contributions of the STOU to higher education and to national development in Thailand.

Chapter five will focus on conclusions and recommendations for further study in this area.

CHAPTER II

DISTANCE EDUCATION: THEORIES AND CONCEPTS

Flinck has defined "distance education" as:

A learning system where teaching behaviors are separate from the learning behaviors. The learner works, alone or in a group, guided by study material arranged by the instructor who together with the tutors is in a location apart from the students, who however have the opportunity to communicate with a tutor/tutors with the aid of one or more media such as correspondence, telephone, television, radio. Distance education may be combined with various forms of face-to-face meetings.¹

Distance education at the university level is an alternative approach to conventional university education. It has been classified into two types:

1) autonomous distance teaching universities which are designed for using a variety of distance-teaching methods to provide specially prepared multi-media courses, and with formal responsibility for evaluation and accreditation. The first of this type of institution is the British Open University, established in 1969. It is often the case for countries where institutions are older and more traditional that there is less willingness to embark upon the new methods of distance learning. Therefore, new institutions have to be created to promote this form of learning.

2) adapting wings of traditional colleges and universities, i.e.

¹ Rune Flinck, *Correspondence education Combined with Systematic Telephone Tutoring* (Malmo: Hermods, 1978), p. 5.

correspondence study, university extension programs in the United States, external studies in Australia, and so forth.

Distance education at the university level is designed to widen access to higher education. This concern dates back to the 1860s in the United States, with the founding of the Land-Grant Colleges under the provisions of the Morrill Act and the beginnings of the university extension movement. The first methodology to appear in the direction of distance education was correspondence study. In the 1880s, there were many correspondence teaching institutions around the world. In the United States, the foundation of a correspondence program at Illinois State University in 1874 marked the beginning of distance education at the university level. In 1932, the State University of Iowa began to broadcast educational programs. One of the major achievements was the success of the educational television programs provided by the Chicago City College since 1956. Its success aroused great interest in television's educational potential in the 1950s and in the 1960s.

Another university that has a long and fruitful association with program at a distance was the University of Wisconsin. In 1906, correspondence study was introduced at the university. In 1919, its educational radio broadcast went on the air to provide greater access to higher education for adults who had at an earlier stage in their careers missed the opportunities to renew or update their knowledge. During 1964-1968, with partial funding from the Carnegie Corporation, a unique four-year experiment in the opening of higher education called "AIM" (Articulated Instructional Media) developing a multi-media learning system, was inaugurated. Wedemeyer noted:

This experiment, called "AIM" laid the theoretical, academic,

technological, and operational bases for the creation of the new institutions of open, distance and independent learning....the principles were almost immediately applied in the new (1969) Open University in the United Kingdom. Thereafter followed an explosion of new institutions of this type.²

Theories of Distance Education

For the most part, the concept of distance education has managed quite well without any formal theoretical perspective. Much effort in this field has been to emphasize the practical. However, efforts have been made to generate theoretical frameworks as a means to classify the phenomena in the field, in relation to the decisions on appropriate methodological strategies, media, financing, student support and so on. These theoretical perspectives, however, are not constructed from wholly new components but rather reflect on existing educational theories. Holmberg has noted that "the disciplines of distance education would thus meet Popper's dictum that the task of scholarship is on the one hand theoretical, to bring about explanation, and on the other hand practical, to provide for application of technology."³

One way of developing distance education for the future, then, would appear to be through deliberate applications of relevant educational theories or models. Baath has established a useful basis for further theoretical and practical work in this area. In *Correspondence Education in the Light of a Number of Contemporary Teaching*

² Charles Wedemeyer, "Back Door Learning in the Learning Society," in *Distance Education: International Perspectives*, eds. D. Sewart et al. (New York: St. Martin's Press, 1983), p. 133.

³ Borje Holmberg, "The Concept of Distance Education", in *Distance Education: An International Perspectives*, eds. D. Sewart et al. (New York: St. Martin's Press, 1983), p. 3.

Models (1979), he analyzed seven accepted teaching and learning models: 1) Skinner's behavior-control model; 2) Roger's model for facilitation of learning; 3) Ausubel's organizer model; 4) Bruner's discovery-learning model; 5) Rothkopf's model for written instruction, 6) Egan's structural communication model, and 7) Gagne's general teaching model, and related its principles of teaching and learning and its applicabilities to distance education. These models will be discussed later in pre-produced course materials.

Others, such as Moore and Wedemeyer, related distance education with theories of autonomy and independence, while Holmberg and Sewart related it with theories of interactions. These two theories have had great influence on the decisions on the distance teaching and learning system. These theories will be discussed in the sections that follow.

Theories of Autonomy and Independence

✓ The distance education or the independent study depends on the "autonomy" and the "independence" of the learner. It depends on the learner's autonomy to make decisions on the learning programs, and on the learner's independence (self motivation) to carry on the learning. The learner's autonomy comes from the independence of other-direction, of other-directed teaching and from a release of the space-time bondage.

✓ Moore defines "Independent study" as "any educational program in which the learning program occurs separate in time and place from the teaching program, and in which the learner has an influence at least equal to the teacher in determining goals, resources and evaluation

decision."⁴

3 ✓ Moore defined "autonomy" as "the extent to which the learner in educational program is able to determine the selection of objectives, resources and procedures, and the evaluation design."⁵ The autonomous learner is emotionally independent (independent of others' approval) when pursuing a learning program. He is motivated primarily by the need for self approval. It is the choice of the learner on the basis of his own needs, concerns, and aspiration that serves as his primary motivation. This autonomy can be identified with Boyd's definition of the adult learner. He defined it as, "The adult knows his own standards and expectations. He no longer needs to be told, nor does he require the approval and rewards from persons in authority."⁶

Moore has asserted that "there are degrees of 'independent learning and teaching'. The more the distant, the more independent, but simultaneously, the more distant, the greater the learner autonomy."⁷ The autonomy should be instilled in the learner so that he is responsible for learning throughout his life. Sewart has pointed out, "...it is vital not only to teach and impart knowledge or know-how, but to help the individual concern to acquire gradually an educational autonomy and

⁴ Moore 1983, p. 78.

⁵ Ibid., p. 82.

⁶ Robert Boyd, "A Psychological Definition of Adult Education," *Adult Leadership* 13 (Nov. 1966): 180.

⁷ Michael Moore, "Independent Learning and Teaching," *Journal of Higher Education* 44:12 (Dec. 1973): 674.

to retain the desire to exercise it."⁸

From the theory of autonomy, Moore has developed an elaborative model, "Telemathic" teaching, which is a taxonomy of methods and media, and the ranking of students according to their cognitive styles and degree of autonomy as learners in order to maximize success.

It is also believed that the learner's independence is central of every educational process. Sims has stated that "...in whatever society, for whatever purpose, by whatever means, under whatever ideology, the essential objective in educating processes is learning by an individual learner....the methodologies or strategies employed are only incidental to this end."⁹ Wedemeyer has also supported the independence and the individualization of the learner. He has considered:

The student should be free, to pace his learning according to his own circumstances and not be bound by any mechanism of the institution, to follow any of several channels for learning, to select goals he wishes to aim at, to choose the activities that will lead to these goals, and to evaluate his own achievement....it is the freedom of choice, autonomy, and independence that has kept this kind of learning vital, practical, resourceful, innovative, and humane.¹⁰

Moore supports the autonomy and the independence of the learners. He believes in the "organismic" or "active" model where "learners are sources of their own behavior or maturity, have ultimate responsibility for the conduct of their own learning, are self-initiated and self-moti-

⁸ Barnard Pagny, "What Advantages Can Conventional Education Education Drive from Correspondence Education," in *Distance Education: International Perspectives*, eds. D. Sewart, p. 162.

⁹ Ripley Sims, *An Enquiry into Correspondence Processes: Policies, Principles, and Practices in Correspondence System Worldwide*. Unpublished ICCE-UNESCO Report, 1977, p. 18.

¹⁰ Wedemeyer 1983, p. 138.

vated."¹¹

Although Moore emphasizes the independence of the learners, he also believes that the communication or interaction, the sending and receiving of messages, is an essential element of every educational program. He believes that a learner's distance from the teacher is a function of dialogue and structure. He has stated:

Structure is the extent to which the objectives, implementation procedures and evaluation procedures of the teaching program can be adapted to meet the specific objectives, implementation plans and evaluation methods of a particular student's learning program. Dialogue is the extent to which interaction between learners and teacher is possible.¹²

It is believed that a multi-media course centrally produced for large student enrollments has an authoritarian flavor. For instance, programmed texts, with high structure and low dialogue, and where the course "tells" students what they ought to do, promote an autocratic style. However, Lehner has pointed out that "it is, in fact, possible for a distance-study course to offer and suggest choices of study material and approaches as well as of work to be done instead of prescribing what must be done."¹³

Nevertheless, the autocratic style of the learning materials might work for certain students. As Moore has noted:

Whether a particular learner will benefit from a program low in distance, or from a highly telematic program is determined by the extent to which he benefits or is impaired by direction and admonition. This is determined by his competence as an autonomous, or

¹¹ Moore 1973, p. 667.

¹² Michael Moore, "A Model of Independent Study," *Epistolodidaktika*, 1 (1977): 38.

¹³ H. Lehner and M. Weingartz, "Ready-made and Individualized Distance Study," *ICCE-Newsletter* 11:1 (1981): 7-10.

self-directed learner.¹⁴

Theories of Interaction and Communication

Many educators believe that distance learning is more effective through dialogue or interactions between teachers and learners. This dialogue can be developed through correspondence or occasional face-to-face meetings between the tutor and the student, or it may be organized through student group discussion. Furthermore, it can be through the student's interaction with study materials.

Holmberg has identified two types of communications relevant for this discussion. They are:

- 1) *simulated communication*: the student's interaction with the study material, i.e. self-checking exercises, review questions with model answers, student internalized conversation by study of a text.
- 2) *real communication*: the communication between the student and the tutor or counselor in writing, by telephone or by other means such as personal contact by way of face-to-face meetings.¹⁵

Thus, some learning activities provided are independent, some are interactive. Independent learning activities include the study of written material, watching/listening to broadcasts/audio visual materials, written essays and assessments, lab experiments at home (kits), surveys and project work. While the interaction activities involved may be: a) face-to-face meetings; b) telephone counseling or tele-conferencing (a guiding group discussion by phone); c) correspondence such as written

¹⁴ Moore 1977, p. 38.

¹⁵ Borje Holmberg, "Guided Didactic Conversation in Distance Education," in *Distance Education: International Perspectives*, eds. D. Sewart et al. (New York: St. Martin's Press, 1983), p. 116.

interaction; and d) summer school.

To facilitate the dialogue or interaction, Holmberg suggests the *guided didactic conversation*, which is characterized as:¹⁶

- a) Easily accessible presentation of study matter; clear, somewhat colloquial language, in writing easily readable; moderate density of information.
- b) Explicit advice and suggestions to the student as to what to do and what to avoid, what to pay particular attention to and consider, with reason provided.
- c) Invitations to an exchange of views, to questions, to judgments of what is to be accepted and what is to be rejected.
- d) Attempts to involve the student emotionally so that he or she takes a personal interest in the subject and its problems.
- e) personal style including the use of the personal and possessive pronouns.
- f) Demarcation of changes of themes through explicit statements, typographical means or, in recorded, spoken communication, through a change of speakers, e.g. male followed by female, or through pauses (this is a characteristic of the guidance rather than of rather than of conversational).

He believes that feelings of personal involvement between the teaching and learning parties promote study pleasure and motivation. He summarizes his hypotheses about guided didactic conversation as follows:¹⁷

- a) the stronger the characteristics of guided didactic conversation, the stronger the students' feelings of personal relationship between them and the supporting organization;
- b) the stronger the students' feelings that the supporting organization is interested in making the study matter personally relevant to them, the greater their personal involvement;

¹⁶ Borje Holmberg, *Status and Trends of Distance Education* (London: Kogan Page, 1981), pp. 31-32.

¹⁷ *Ibid.*, p. 32.

- c) the stronger the students' feelings of personal relations to the supporting organization and of being personally involved with the study matter, the stronger the motivation and the more effective the learning.

Guided didactic conversation is assumed to be attractive to students, to support study motivation and to facilitate learning. Most learners, also, who are among the most mature and autonomous students, benefit from teaching presentations based on this style of teaching. Holmberg has asserted that "the more a student is dependent on guidance, support and encouragement, the likelier is the favorable influence of the guided didactic conversation."¹⁸

The importance of the conversational character of the text is also supported by Lewis. He has asserted that the creation of this internal dialogue between the student and the study materials, i.e. solitary activities in private reasoning and silent reading, or as he terms *internalized conversations*, has been a significant element in changing the student from a passive to an active learner. He also believes that "text elaboration (thinking aloud), the interaction of the text content with the prior knowledge of the reader, has, in fact , proved conducive to retention."¹⁹

While Holmberg and Lewis emphasize the importance of the interactions between the student and the study materials (simulated communication), Baath and Sewart emphasize the importance of real communication. Baath emphasizes that the communication taking place between the students and a supporting organization, or as he terms it *two-way commu-*

¹⁸ Holmberg 1983, p. 115.

¹⁹ N. Lewis, "Conversation Man," *Teaching at a Distance* 2 (1975): 68-71.

nication, is vital to learning. Most of this communication between the students and the tutor is through submissions of assignments, which are then commented on and returned to the students with constructive advice, by way of mail, computer, telephone or face-to-face meetings. However, he also supported simulated communication such as the student's interaction within the study materials by means of exercises, questions or self-check tests.

Sewart rejects the notion that the package of materials can perform all the functions of a teacher. He believes that an advisory and supportive role of a distance institution in addition to the provision of a teaching package, is an important ingredient. He terms this advisory and supportive role as, *a continuity of concern*. This support starts from the beginning when students first enroll, they will be assigned to a tutor as an advisor who will also serve as an advisor throughout their study until they graduate. This support is essential, especially in the first year when students need to adjust to the independent study. However, the support will be diminished in the following subsequent years.

Characteristics

To elaborate further on distance education, the characteristics of distance education, in terms of its differences from conventional education, will be discussed under the following topics:

- 1) Means of Communication: non-contiguous communication at a distance.
- 2) Teaching Methods: use of technical media.
- 3) Flexibility and Individualization: time, space, educational

needs and interests.

- 4) Learning Materials or Learning Packages.
- 5) Support Services: tutoring and counseling.
- 6) Students' characteristics in terms of heterogeneity such as age, experience, and educational background.
- 7) Philosophy and Objectives: lifelong education, quality, equality, and efficiency.

Means of Communication

Normally, the teaching that goes on in the traditional or conventional learning modes is characterized by contiguous teaching which Wedemeyer describes as follows: "The distinguishing element in contiguous teaching is what is usually called social interaction, which is defined as a relationship between two persons in which the behavior of one is stimulus to the behavior of the other."²⁰ While in distance education, the teaching is characterized by non-contiguous communication at a distance where the teacher and the learner are separated in time and space. The communications are largely written, including some other media, while personal and face-to-face meetings are limited.

Teaching Methods: Use of Technical Media

Because of the distance, the communication depends on the educational technology, for instance, correspondence, printed materials, teaching and learning aids such as audio/video cassettes, radio, television, and computers. However, principles of educational psychology are

²⁰ Wedemeyer 1977, p.16.

very much in concern for facilitating the teaching, in terms of planning materials, media, and support for the learner.

Feasley has categorized media used into two types as follows:²¹

- a) noninteractive media, such as television, radio, and print;
- b) interactive media, such as audio/video cassettes, and computers.

The different technical media (teaching methods) that are presently available include:

- a) Printed text
- b) Radio and television programs (broadcasting,)
- c) Audio/video cassettes
- d) Telephone (counseling and tele-conferencing)
- e) Computer-aided learning (CAL): teletype terminals, visual display unit, etc.
- f) Assignments
- g) Face-to-face meetings (tutorials, laboratory or practical work, films or tapes in support of a teacher's instruction)

Print: Print is the key medium in distance teaching, for instance, the teaching basis of the British Open University is approximately 80% print-based, 10% broadcasting (radio and television), and 10% face-to-face tutoring, seminars and summer school.

Print has undergone great refinement in the last 15 years due to the use of more imaginative color and layout, and the effective use of study and interactive devices such as self-exercises, pre-tests, post-

²¹ Charles Feasley, *Serving Learners at a Distance: A Guide to Program Practices* (Bethesda, Md.: ERIC Reproduction Service, ED 238 350, 1983), pp. 1-2.

tests and displayed lesson overviews.

In many cases the best medium is still print. Feasley noted its advantages as "...being familiar to almost all learners, inexpensive, portable, a fixed presentation (it can be looked or reviewed at any part of the message in any order for any length of time), and easily distributed."²²

Besides, correspondence is by far the cheapest method of communication at a distance. A large number of institutions use only correspondence as a method communication. It is believed that teaching at a distance relies now, and for the foreseeable future, upon the technology of printing.

Television: The broadcasts form a vital component of the teaching materials provided for Open University students. O'Rourke has noted its advantages and disadvantages as follows:

It is effective for instruction....it magnifies small objects, brings the outside world to the student, can be replayed to show processes or sequences as required....it is not effective with material that requires presentations over an extensive time span, nor is it useful for illustrations and graphics that require wide eye span.²³

Some researchers have found improvement in completion rates of correspondence courses with the addition of regular television broadcasts. Research also tends to show that "the more successful students watch broadcasts more consistently, though there is no clear pattern of cause and effect."²⁴ It depends on the preferred learning pattern of the

²² Ibid., p. 16.

²³ J. O'Rourke, "Research Telecommunications and the Adult Learner," in *An Overview and Guidelines*, eds. J. Zigerell et al. (Bethesda, Md.: ERIC Reproduction Service, ED 206 329, 1980), p. 34.

students. Investigation disclosed that "most adult learners want television-based courses, but do not want to feel that they are being entertained nor want to have their time wasted."²⁵

It is believed that in many cases broadcast radio or audio cassettes can be substituted for broadcast television, which is about five times more expensive, especially in the developing countries where there is lack of media's penetration.

Radio: The British Open University has always considered radio broadcasts essential supplements to its system. McKenzie noted its pedagogical value as follows:

It can pace students through the instructional materials of a course, provide feedback to students so that they have a sense of belonging, and update or correcting existing materials. Primary resource materials, such as performances, speeches, and discussions can be brought directly to listeners, influencing people at large as well as students. Radio can modify students' attitudes by presenting material in a novel or dramatic way or form an unfamiliar viewpoint.²⁶

In the developing countries, radio has been successfully used for literacy, for adult education, and for national development.

Audio/Video Cassettes: Audio-cassettes have multiple uses, for instance, for mastery of learning drills, comments on graphs and charts, illustrations in texts and printed lessons, as supplements for follow-up to television programs, for documentary enrichment such as interviews and conversations, and for lectures by specialists and well-known fig-

²⁴ A. Bates, "A Survey of Student Use of Broadcasting," *Teaching at a Distance*, 5 (1976):28.

²⁵ R. Lewis, *Meeting Learners Needs Through Telecommunications* (Bethesda, Md.: ERIC Reproduction Service, ED 227 731, 1983), p. 207.

²⁶ Norman McKenzie, ed. *Open Learning: Systems and Problems in Post-Secondary Education* (Paris: Unesco Press, 1975), p. 60.

ures. Another advantage includes ready availability where students can stop and replay them at will, at any time, whether at home or at the study center. In contrast to open circuit broadcasts, cassettes enable more students to succeed because students can spread their studies over a different period. The British Open University has used audio-cassettes extensively to deal with limitations on available radio and television broadcast time. Results of subsequent evaluations have shown a higher satisfaction with the role of the audio-cassettes.

Telephone: Lewis has noted that "the most frequently used technology in the United States, noted in a recent survey of 70 exemplary programs for serving individual students off campus was the telephone."²⁷ Coldeway believes that "the use of the telephone produces higher completion rates and is only slightly more costly than other media."²⁸ Moreover, Feasley has noted that "low cost, ability to provide interactive instruction to isolated distance individuals, and the flexibility of time as the major advantages of the telephone."²⁹ One study reported the positive role that "the use of telephone can play in students' retention and performance."³⁰ Other studies have shown the students' satisfaction with the use of telephone. However, in the developing countries, due to the lack of availability of telephone services,

²⁷ R. Lewis, op. cit., p. 210.

²⁸ D. Coldeway, "Recent Research in Distance Learning," in *Learning at a Distance: A World Perspectives*, ed. J. Daniel (Bethesda, Md.: ERIC Reproduction Service, ED 222 635, 1982), p. 31.

²⁹ Feasley, op. cit., p. 27.

³⁰ K. Anandam and B. Fleckman, "Telephone Dialogue Intervention in Open Learning Instruction," *Journal of College Student Personnel* 18 (1978): 219-227.

the telephone is seldom used.

Computer: The two chief categories of computer use for distance learning are: a) computer-assisted instruction (CAI) where students interact directly with a computer, and b) computer-managed instruction (CMI) where students do not communicate directly with the computer.

The ability of the CMI has been noted as follows:

1) present alternative goals that students select to determine their learning paths; 2) continuously monitor and assess how much practice a student requires, how well information is retained, and what methods of study work well; 3) use previous performance data to prescribe specific methods of study or testing; and 4) provide the instructor with group and individual statistics to help in the revision of course materials.³¹

The computer's advantages lie in saving time and allowing more individualized instruction. Studies by Kulik and Cohen have shown that "the computer produced about a 25 percent saving of time spent in instruction."³²

Effects of Media on Instruction

Trenamen has noted that "while differences, between students and differences between subjects, have a major effect on how easily something is learned, differences between the media seem to be far less important."³³ One investigator reported that "students can learn equally

³¹ W. Cooley and R. Glasser, *An Information and Management System for Individually Prescribed Instruction*. Mimeographed. Pittsburgh Learning Research and Development Center, University of Pittsburgh, 1969, n.p.

³² Kulik and Cohen, "Effectiveness of Computer-Based College Teaching: A Meta-analysis of Finding," *Review of Educational Research* (1980): 543.

³³ J. Trenamen, *Communication and Comprehension* (London: Longman, 1967), p. 43.

by about any media or method if that method is used well."³⁴ and to which one must add, and "if students are highly motivated."³⁵ Another factor that must also be noted is the student's study habit.

Sparkes has noted that "different teaching methods and techniques have differing capabilities and constraints, as regards to -- their suitability for different educational aims, subject matter, students, teachers, and their cost."³⁶ He, among others, then, suggests a multimedia approach. Perraton also supports this approach. He has noted:

There is no easy way of deciding which medium to use, in what way, for which purpose. But there is evidence to believe that several media are better than one. This may simply mean that to use more than one medium makes learning more fun, and therefore, perhaps, more effective, or that it enables information presented in one medium to reinforce that in another, or that individuals learn more easily from one rather than another.³⁷

Trends in Media Used

Despite a strong trend toward the use of multiple media, the major way of providing distance education remains printed materials. While broadcast radio and television, proving to be of less significance in teaching systems than they were originally expected, are being used less and less. Perhaps the most important factor about the value of televi-

³⁴ R.A. White, *Motivational and Social Factors in the Use of Communication Technology for Education* (Bethesda, Md.: ERIC Reproduction Service, ED 211 043, 1980), p. 8.

³⁵ Zigerell, op. cit., p. 58.

³⁶ J.J. Sparkes, "On Choosing Teaching Methods to Match Educational Aims," in *Distance Education: An International Perspective*, eds. D. Sewart et al. (New York: St. Martin's Press, 1983), p. 258.

³⁷ Perraton, "A Theory of Distance Education," in *Distance Education: International Perspectives*, eds. D. Sewart et al. (New York: St. Martin's Press, 1983), p. 41.

sion and radio comparatively, however, is the student's study habit. However, the range of audio-visual media (interactive media) suitable for distance education is rapidly increasing. This is due to the effort to use media that can replace the interpersonal communication between the teacher and the learner, thereby making teaching and learning more humanized. Nevertheless, the educational potential of audio-visual media still tends to be under-exploited by distance learning systems.

The range of media options is broadening. Multiple media, for instance, television, radio, audio-video cassettes, computers, correspondence, telephone, are used to meet the needs of diverse students. However, Feaseley has noted that "...the accessibility to distance delivery system may becoming more reflection of student's wealth than institutional commitment."³⁸ He has also suggested that "the selection of media to deliver instruction must be based on what costs least, is least complicated, is most accessible, and still produces the desired results."³⁹

Flexibility of the System and the Individualization

Distance education is an educational device for individualization in three distinct senses:⁴⁰ "a) student ability; b) variety of course offerings; and c) flexibility for time and space of study."

Distance education usually has flexible admission requirements or no requirements at all; the intent is to create situation that "will

³⁸ Feasley, op. cit., p. 34.

³⁹ Ibid., p. 16.

⁴⁰ Sims, op. cit., p. 24.

open learning on the basis of need, motivation, maturity and experience, and not on the basis of previous education or certification."⁴¹

Courses tend to respond to the students' needs and interests. Diversity of individual opportunity rather than uniform prescription is encouraged, time, space are de-emphasized. The learner can learn in the way and at the pace that is suitable to him. He is free to control his own learning situation, to determine his goals, his learning activities, etc.

Learning Materials or Learning Packages

Pre-produced course materials or learning packages are the basis of the distance education. They are mostly printed materials. Holmberg has noted that "experience shows that a printed course without any sophisticated auxiliary media can be highly effective."⁴² They also consist of other media, for instance, audio/video cassettes, television or radio programs, or experimental kits.

The quality of course materials are said to be in both the quality of content and the quality of presentation. The British Open University always considers the quality of packages of material and the course team (consisting of academic personnel, educational technologists and BBC television and radio production staff) as a major contributory factor of their success. It is believed that a course produced by the course team will inevitably tend to be superior in quality to any course produced by an individual. Generally, study materials used in the open universi-

⁴¹ Wedemeyer 1975, p. 17.

⁴² Holmberg 1981, p. 11.

ties, if not created by a team of specialists in the British Open University fashion, are products of people who have valid claims to be experts in the field. Since teaching materials and programs are openly available for others to criticize, for instance, books are on sale in the public bookstore, radio and television programs are broadcast to the public, they call forth from academics a very high quality of product.

Holmberg has categorized two approaches in course preparation as follows:

- a) the self-contained approach: courses that are complete in themselves, i.e. foreign languages and mathematics. It is practical when course content is fairly elementary and does not call for a study of difference sources.
- b) the study-guide approach: requires the students to read and/or listen to presentations of various kinds, to compare and criticize them and to try to come to conclusions of their own. It is practical when the learning is to include part or the whole of the content of various books, papers and other sources of knowledge.⁴³

Packages normally combine subject matter (the academic content of the course) and an advice/support role (i.e. advice to the individual in the context of studying at a distance, career planning and general welfare). They are usually attractively presented and highly structured self-instructional materials. It is important that the materials be designed to motivate students to work at frequent and regular activities. These include learning materials that have a guided didactic presentation, stimulated activities, implied reasoning, discussing for and against a topic, and reference to the student's previous experience. It should be noted that learning facts and truths presented in the form of ready-made systems does not seem to inspire critical thinking in an

⁴³ Holmberg 1977, p. 24.

effective way. Rowntree observed that "the more explanatory and 'clear' the exposition, the less there is for the student to do. Some texts are so 'perfect' as to stifle all real thinking activity."⁴⁴ To meet this problem, Lehner has suggested "a genetic learning approach", "...starting from problems, such as making assumptions, and developing hypotheses, instead of starting by learning the solutions. This will encourage intellectual curiosity, initiate searching and is apt to lead to a higher degree of independence of judgements."⁴⁵

Baath has related some teaching models to course construction in distance education. For instance, according to Bruner's discovery model, learning materials should begin with the most inclusive concepts and principles and then proceed by progressive differentiation (more or less strictly realized) and integrative reconciliation to the most specific application. According to Ausubel's advanced organizer, each new chapter or at least each new study unit should be introduced by means of an organizer with the purpose of relating the new material to previously studied material and other relevant knowledge. The relations should be pointed out by means of subsumption or comparison. He also emphasizes the transformation of knowledge as he asserts:

Extreme care must be attached to conceptually clear texts and logical organization of the material. Each study unit should contain reviews, exercises, and other measures aimed at consolidating the previously learned material and - above all - at promoting transfer

⁴⁴ D. Rowntree, *Student Exercises in Correspondence Texts* (Milton Keynes: The Open University, 1973), p. 2.

⁴⁵ Lehner, op. cit. p. 14.

of learning to subsequent study units.⁴⁶

However, it is vital that a teaching model used should be appropriate to the subject as well as to the student's cognitive level, learning styles, etc.

In addition, Baath also suggested some ideas for courses' construction as follows:⁴⁷

- a) arouse attention and motivation,
- b) present objectives of the instruction,
- c) link up with previous knowledge and interest,
- d) present the material to be learned,
- e) guide and structure,
- f) activate,
- g) provide feedback,
- h) promote transfer,
- i) facilitate retention, and
- j) appraise students' performance.

Other factors for course construction that should be considered are budget, type of course, type of distance education, nature of the subject, target group, and so forth.

It should be noted that not all subjects can be learned at a distance. Some courses such as those that require laboratory work and psychomotor skills present logical difficulties to learning at a distance. However, the lists of subjects unsuitable to distance education is shrinking almost year by year. This is due to the use of computers, the provision of laboratory workshop at institutions, kits to be experimented by students at home, and so on.

⁴⁶ John Baath, "Teaching Models for Designing Courses Creatively," in *Learning at a Distance: A World Perspective*, p. 39.

⁴⁷ John Baath, "A List of Ideas for the Construction of Distance Education Courses," in *Distance Education: International Perspectives*, eds. D. Sewart et al. (New York: St. Martin's Press, 1983), pp. 275-276.

Student Support Services

The use of technical media is often criticized as being dehumanized. Rumble noted that "to devise learning packages which will allow students to become completely independent of teachers and other students must lead to dehumanizing the learning process."⁴⁸ The role of the tutor is seen as a device to humanize the instruction. Since the learning packages are designed by staffs who do not teach, the interrelationship of the package of materials with the student will be achieved through tutors and counselors.

The British Open University's success has demonstrated that large numbers of people can successfully study at a distance. It should be noted that the essence of success in distance teaching university is mainly a matter of getting the right balance between elements of independent study and opportunities for direct personal interaction between staffs and students. It is believed that students from educationally disadvantaged groups can successfully complete degree studies if adequate support services are given.

There are two basically different approaches in providing support services: a) non-contiguous communication by media such as the written word in terms of written style of the study materials, written comments on assignments; and b) face-to-face contacts. Both approaches rely on the roles of the tutor.

The Roles of the Tutors/Counselors

1. *To facilitate*: The tutor should help the student to learn from

⁴⁸ G. Rumble and D. Keegan, "General Characteristics of the Distance Teaching Universities," in *Distance Teaching University*, eds. G. Rumble and K. Harry (N.Y.: St. Martin, 1982), p. 214.

the material, either by himself or in group. He should discuss academics with the students, ensure that they understand the ideas and arguments, or if they need to be remedied in their academic weaknesses. It is important that he understands the teaching materials and the intention of the course. This can be achieved by acquiring special notes, periodic communication or meetings with the course team, so that he can interpret, explain, supplement and link the learning materials to the student's individual needs and ability.

He should help them cope with their "freedom", define goals, and help improve their study skills and study habits. It is believed that good study habits can lead students to continue to refine their study techniques independently, thereafter.

2. *To support:* The tutoring skills should include both content expertise and interpersonal skills. There is a broad agreement that the personal style of the tutor is important as well as his teaching competence. The tutor should give emotional support, by way of instilling self-confidence, and motivating the student. This can be done through encouraging comments or in face-to-face meetings. The face-to-face meetings also provide for a large number of students as a stimulus, both social and educational, to the continuing process of study. Some studies have shown that students attend tutorials did better in percentage of completions, average grades, and time needed to finish the courses than those who did not attend. However, there is no clear conclusion whether tutorials attract high performance learners or whether they contributes to high performance.

It should be considered that good students deserve stimulus as much as the weaker ones need support. Sewart suggests "a continuity of

concern" which links each student to a tutor. The role of the tutor is suggested to be an important element for most new students, in the early steps of adapting to learning at a distance. This "continuity of concern" is also the basis of the individualized service the university provides to the students, and is believed to prevent dropouts.

Although students are free to pace themselves, there should be some forms of pacing, i.e. deadlines for assignments, group meetings, tutors' support, to encourage them to continue or to complete their studies. As Daniel has noted, "remote learning systems must beware of the illusion of solving problems with flexible rules."⁴⁹ Researchers found that self-pacing often leads students to withdrawal or procrastinate, while procrastination leads to inferior academic performance or eventual withdrawal. Although investigators related attrition to socioeconomic and other factors, Perry noted that "one reason for a very large student drop-out rate is due to the lack of drive and dedication to maintain the work over a long period without an enforced pacing mechanism."⁵⁰ It is the role of the tutor to reinforce motivation toward the continuation and completion.

3. *To assess the students' progress:* The tutor should not be seen as a grading instrument but rather a guidance person who will help to improve students' work. He will convey, through his comments, advice for further study, and perceive the student's present state of knowledge

⁴⁹ J. Daniel and Clement Marquis, "Interaction and Independence: Getting the Mixture Right," in *Distance Education: International Perspectives*, eds. D. Sewart et al. (New York: St. Martin's Press, 1983), p. 347.

⁵⁰ Perry 1977, p. 105.

and conceptual framework so that the advice may be as relevant as possible to the individual student.

Feasley believes that "the more often testing is proctored, the more likely the institution's credibility is to improve."⁵¹ However, Francis believes that "open-book" exams are more useful for adult distance learners. He asserts:

open-book exam reduced anxiety, and reduced need for memorizing factual material reported by students, besides it reduced cheating. The exams that provided the least benefit to learners used multiple-choice questions to assess factual information, while the exams that were of the greatest value required students to prepare an analysis or synthesis of information.⁵²

4. *Feedback*: Feedback is a necessary part of a distance learning system. Feasley has recommended that "good feedback is an integral part of course design, providing immediacy, regularity, explanatory rather than judgement comments, conciseness, and clarity."⁵³ Apart from the feedback provided by the study materials such as self-assessment exercises, it is important that the tutor provides feedback through assignments or face-to-face meetings. He should give feedback to the student, showing where he has understood or misunderstood the study materials.

Baath believed that "quick handling with proper tutor comments on students' papers has proved essential for students' success....the mode (mail or phone) and immediacy of feedback appears to have a direct

⁵¹ Feasley, op. cit., p. 51.

⁵² John Francis, "A Case for Open-Book Examinations," *Educational Review* 34:1 (1982): 13-26.

⁵³ Feasley, op. cit., p. 50.

effect on learner motivation."⁵⁴ However, it should be considered that some students prefer self-assessment to tutors feedback and comments.

Since the course writers do not have a chance to be with the students, it is the tutors who should provide feedback, from the students and their own, to the course writers so that they can improve their course construction.

Study Centers

Since the open university students are scattered around the country, the open university establishes study centers in each local to provide support services for the students. Normally, the study center is seen as: a) a center where replay devices such as audio/video cassettes may be used, b) a library resources center, and c) a place where tutoring and counseling services are provided. Since students have so little spare time and lack travelling time, attendance at the study center is voluntary.

Philosophy and Objectives

1. *Lifelong Education*: Due to technological and social changes, there is a growing need for credentials, increasing qualifications sought for entry to certain professions, as well as demand for personal fulfillment. Adults need to update their knowledge, either, for changing or maintaining their employment status. Also, because of the shortages in certain skilled manpower areas, there are increasing demand for training. Distance teaching institutions also provide education for

⁵⁴ John Baath, *Postal Two-way Communication in Correspondence Education* (Lund: Gleerup, 1980).

students to access to at any time of their life, at the place and time of thier convenience.

2. *Equality*: One of the objectives of the distance education is to provide the educational opportunities to those who are unable to study at a conventional university for whatever reasons, i.e. social, economic or geographical. For instance, it provides opportunity for those who work at the same time as they continue in full-time employment, for those who have family obligations, for those in the rural areas, and for school leavers who can not find places in the conventional university. Distance education serves well the adults who cannot go to the conventional institution for whatever reasons, or where conventional institutions do not provide for such education.

3. *Efficiency (economies)*: It is the efficient use of limited resources, both human and facilities, for mass education that leads to cost-effectiveness. With educational technology, the system can promote the expansion of education opportunity for a great number of students. Limited staffs can break the integuments of fixed staffing ratios. Perraton has mentioned that "with broadcasts, as with print, one teacher's words can reach a much larger audience than would ever be possible face-to-face so that economies of scale are possible."⁵⁵

Costs per student vary significantly in accordance with student numbers. The level of cost incurred also depends on choice of media, the level of local support services provided, and the sophistication of the administrative services. The average costs could be reduced by changes in policy such as teaching methods, for instance, lessening on

⁵⁵ Perraton, op. cit., p. 37.

the dependence on broadcasting and depending more on print, which has been proven to be effective as well as inexpensive.

4. *Quality*: Keegan has noted that "education at a distance has been characterized by three major problems: (1) excessive student drop-outs, (2) doubts about the quality of learning achieved by distance students, and (3) external acceptance of the quality of the learning and awards by both academics and employers"⁵⁶ Therefore, it is necessary that the distance teaching university establish a reputation for reliability, validity and credibility. Normally, the quality of the learning materials, prepared either by the experts or by the course team (British Open University style), is emphasized. It is believed that the quality of the material is one way to bring about students' success. Their success is normally determined by their performance (internal acceptance) and by the acceptance of the public (external acceptance), i.e. admission of the graduate students to other colleges or to the graduate programs, acceptance from the employer, etc.

However, Wedemeyer has pointed out that "more attention should be given to the non significant differences in findings of past comparative studies of instruction methods which claim that non-traditional approaches reduce instructional standards and quality of learning."⁵⁷ He also argued:

To refuse recognition to all non-traditional schools or learners because some do not meet standards is unjust, since traditional schools also vary in quality...what one has learned, not where, or how, in what sequence, at what institution, or in what period of

⁵⁶ Rumble and Keegan 1982, p. 213.

⁵⁷ Wedemeyer 1975, p. 21.

time -- is the only criterion of supreme important.⁵⁸

Students

There are two types of students: a) those who take courses to supplement their education or jobs, and b) those who acquire a degree. Because of the flexible admission requirements, students in distance education programs reflect a certain type of heterogeneity, in terms of, differences in age, experience, needs, educational backgrounds, and academic proficiency. Most distance learners tend to be career oriented, with a strong drive toward credentialing, whether in the form of course credits, certificates, or degrees. It is believed that success in distance learning presupposes a high level of motivation. Due to the maturity and the drive for credentials, these students are usually highly motivated. However, since they are part-time students in full-time employment, they have little spare time to study.

Distance education is successful for many, but not all, students. Surveys have disclosed that the lower and disadvantaged socioeconomic segments of society are consistently underrepresented in distance education programs. However, it is believed that these students can achieve if adequate support is given.

Conclusions

Distance education at the university level, such as the open universities (autonomous distance teaching institutions), correspondence studies, university extension programs, external studies, has evolved from using a basically correspondence approach to using a multimedia

⁵⁸ Wedemeyer 1983, pp. 135-136.

approach. Its two main characteristics are: a) means of communication where teachers and students communicate non-contiguously at a distance; b) methods of communication which make use of technical media such as correspondence, radio/television broadcasting, telephone counseling and conferencing, audio/video cassettes, and computers. The use of media depends on each institution's policies and resources.

Each institution bases its teaching on its own educational theory. Two main theories are: a) theories of autonomy and independence where quality of self-instructed learning packages, facilitating students' independent study, are emphasized; b) theories of interaction where support services, such as face-to-face tutoring, guidance and counseling services, are emphasized. However, as in the case of the British Open University, the balance of independent study by learning packages and the use of support services has been claimed to lead to the success of the system. One thing that seems to be common to all distance teaching universities, however, is that they all try to establish credibility, by ways of stressing academic standards and focusing on students' achievement.

In the next chapter, the Sukhothai Thammathirat Open university, a distance teaching university or open university in Thailand, will be discussed in terms of its development, objectives, characteristics such as its administration, its teaching methods, and its students.

CHAPTER III

DISTANCE TEACHING UNIVERSITY IN THAILAND

Educational System in Thailand

Educational Structure

The educational structure in Thailand is organized on a 6-3-3 basis; six years compulsory primary education, three years lower secondary education, and three years upper secondary education. Pre-primary education is optional for one or two years.

Secondary school graduates can continue their higher education by:

a) taking the national entrance examination set by the Ministry of University Affairs;

b) meeting the special admission quota set by each regional university, about 40% of the academically qualified students in each region are admitted to each regional university; whereas the best students from each region are admitted, in the particular field needed in their region, to the universities in Bangkok, on the provision that they return to their home region after graduation;

c) selection by private colleges;

d) open admission to the open university, i.e. Ramkhamhaeng University or Sukhothai Thammathirat Open University (STOU).

General college courses take four years to complete, except Architecture (5 years) and Medical Science (6 years).

Enrollment

The enrollment in Thailand has been seen as a pyramid of education where the higher the level of education, the smaller the enrollment. For instance, in 1981, about 96.60% of school age population were in primary education, 31.13% in lower secondary education, 20.54% in upper secondary education, and 4.19% in higher education (see table 1).

In the Fifth National Education Development Plan (1982-1986), there were efforts to provide 6 years compulsory education on a nationwide basis. However, the enrollment target for the primary level would not increase during the Fifth Plan. This was due to the decreased birth rate from 2.3% during the Fourth Plan (1978-1982) to 1.8% during the Fifth Plan (1982-1986). At the bachelor's degree level and higher (excluding the enrollment in open universities), the rate of enrollment would increase 5.6% per year (see table 2).

Table 1

Student Enrollments by Level, Age,
Population Ratio, and % of Distribution by Level
in 1981

Level/Type	Age	Enrollments 1981	Students/Population Ratio	Distribution by level
Pre-primary Ed.	4-6	379,400	9.21	3.77%
Primary Ed.	7-12	7,449,219	96.60	74.01%
Secondary Ed.				
- Lower	13-15	1,106,791	31.13	10.99%
- Upper	16-18	884,075	20.54	8.78%
Higher Ed.				
- Bachelor's*	19-24	246,397	4.19	2.34%
- Higher	-	11,305	-	.11%
Total		10,065,882	41.48	

*universities, colleges, as well as vocational and teacher training excluding those of open universities.

Source: Thailand, Ministry of Education, *Educational Statistics in Brief, Academic Year 1981*, Bangkok, 1981, p. 22.

Table 2

Student Enrollment Target in the Fifth Period (1982-1986)
Classified by Levels and Types

Level/Type	Enrollments		Rate of Increase/Year
	1982	1986	
Pre-primary Ed.	559,000	740,000	8.1
Primary Ed.	7,633,000	7,468,000	-0.5
Secondary Ed.	2,052,200	2,729,500	8.2
- Lower	1,184,000	1,612,000	9.0
- Upper	868,200	1,117,500	7.2
- General	462,400	598,700	7.4
- Vocational	372,000	470,000	6.6
- Others (nurses, soldiers&policemen)	33,800	48,800	11.1
Higher Education	262,400	327,100	6.1
- Diploma	96,240	110,890	3.8
- Vocational	68,440	91,290	8.3
- Teacher Training	27,800	19,600	-7.5
- Bachelor's Degree and Higher*	150,900	184,900	5.6
- Others (nurses, soldiers&policemen)	15,260	31,310	26.2
Total	10,506,600	11,264,600	1.8

*excluding open universities

Source: Thailand, NEC, Educational Planning Division, *The Essence of the Fifth Five Year Educational Development Plan (1982-1986)*, Bangkok, 1981, p. 7.

Educational Administration

The National Education Commission serves as a coordinator for all levels of education. Education at the primary and secondary levels, including vocational and teacher training colleges, are under the control of the Ministry of Education. All universities and bachelor's degree-granted private colleges are supervised by the Ministry of University Affairs. Since all universities are government controlled and supported, it is easier for the government to plan higher education according to the general national development plans, especially the National Economic and Social Development Plan.

Educational Expenditure

In 1982, the government expended 32,364.60 million baht (3.38% of the Gross Domestic Product or 20.10% of the National Budget), of which about 4,510.12 million baht (13.94%) on higher education.¹ A budget allocation of 236,861 million baht or 3.5% of the GDP was planned for education throughout the fifth period (1982-1986). The Budget for regular developmental programs of 203,577 million baht or 3% of GDP can be classified by level and type of education as follows:²

1) Pre-primary and Primary Education

106,132 million baht (52% of the Educational Budget)

2) Secondary Education

42,889 million baht (21% of the Educational Budget)

3) Vocational Education

¹ Ministry of Education, *Educational Statistics in Brief 1981*, Bangkok, 1982, pp. 41-42.

² NEC, *op. cit.*, pp. 8-9.

14,142 million baht (7% of the Educational Budget)

4) Teacher Training Education

5,005 million baht (2.5% of the Educational Budget)

5) Higher Education

22,912 million baht (11% of the Educational Budget)

6) Educational Promotion and Others

8,304 million baht (4% of the Educational Budget)

The promotion of research studies for higher education institutions has a budget of 150 million baht.

1 US\$ = 27 baht

Educational Goals and Policies

The National Education Development Plan came into force in 1961. It was formulated as an integral part of the Social and Economic Development Plan. The first two plans focused on the production of middle and high level manpower. The third plan had the major emphasis of increasing of educational opportunities through the expansion of compulsory education (from 4 years to 6 years) and on the improvement and expansion of secondary education in the provinces. The fifth plan aimed at reforming education of all levels to ensure that education could fulfill the basic needs of society and national development by improving manpower quality.

The general aims of the Fifth National Education Development Plan (1982-1986) are:³

to accelerate the development of the educational system both in

³ Ibid., p. 3.

quantity and quality to meet the social and economic needs of the country. The Plan, in particular aims at the development of education as a means to inculcate knowledge, thoughts, vocational skills, morality, a conscience, health, culture and peacefulness in democracy under monarchy.

In order to achieve these aims, the general policies for educational development are identified as follows:⁴

1. To provide an integrated system of education for all levels and all types, formal and non-formal, in quantity and proportion appropriate for the overall efforts of the country with respect to education, economic and social development;
2. To improve the quality of education at all levels and all types, with reference to restructuring of the standardization, accreditation, evaluation and supervision systems as well as improvement of curriculum development, innovation and appropriate technology in education; coupled with in-service training for teachers and reproduction and distribution of textbooks and curriculum materials;
3. To improve the structure of educational administration and management system at all levels and all types, aiming at uniformity, integration, efficiency, effectiveness and sensitivity to social change;
4. To provide and promote educational equity with the emphasis on more opportunities for those less-privileged groups such as the rural people by allocating the educational resources in a greatly increasing proportion; and with respect to a fair distribution of vocational institutions to satisfy the demand of the labour force including the proportion of the quality of vocational education in these institutions as well as the revision and improvement of the selective system at each level of education;
5. To encourage the private sector to participate and invest in education within limits and proportion set forth by the government, aiming at better procedures and formulas for the improvement of its educational equality. Private institutions of higher learning will be encouraged to expand their educational services in the disciplines that institutions have capacity to do;
6. To promote and disseminate research studies for educational progress and national development, aiming particularly at applied research for the uses of energy and technology for rural development.

⁴ Ibid., pp. 3-4.

Higher Education in Thailand

Development of Higher Education in Thailand

Higher education in Thailand began in the late nineteenth century in response to the national needs to train personnel for government services. In 1889, a medical school was established at Siriraj Hospital. In 1902, the Royal Pages School began to provide general education and training in administration. A law school was started within the Ministry of Justice in 1897, and in 1913 an engineering school was established. In 1916, these schools were incorporated into Chulalongkorn University, the first university in Thailand.

In 1933, one year after the revolution that changed Thailand from an absolute monarchy to a constitutional monarchy, Thammasart University, specializing in social science studies, was established. This was followed by the University of Medical Sciences (Mahidol University) in 1942; Kasetsart University, specializing in Agriculture and Forestry, in 1943; Silapakorn University, specializing in study and preservation of art and archaeological artifacts of Thailand in the same year.

In the late 1950s and early 1960s, there were concerns by government officials and educators about the social and economic development programs in the regions. Teacher Training Colleges were established in rural areas. Three universities were established in each region: Chiang Mai University (1964) in the North, Khon Kaen University (1964) in the Northeast, and the Prince of Songkhla University (1967) in the South. In addition, to meet the increasing demand for higher education, several private colleges were established. In 1966, the National Institute of Development Administration (NIDA) was founded to train high-

level administrators on the master's and doctoral levels, mainly for local governments. It also conducts special non-degree courses to upgrade the skills of civil servants.

In 1971, King Mongkut's Institute of Technology was formed, by merging three technical institutes. It offers five-year degree programs in mechanical, electronic, and industrial engineering. In 1974 Prasarnmitr College, with 3 campuses in Bangkok and 4 other campuses in different parts of the country, (specialized in teacher training, established in 1964) was upgraded to university status as Srinakharinvirot University. In response to the social and nation needs, two open universities were established, Ramkhamhaeng University in 1971, and the STOU in 1981. The following statement summarized the basic trends of the era:

Economic growth, population pressures, social and manpower planning, the requirements of the economy for more highly skilled/trained personnel, the belief that investment in formal education would lead to socio-economic development, and finally political considerations for the instability of the regions away from Bangkok, together with fears of growing unrest amongst secondary school students unable to gain access to university, were all pressures that at different times and in different ways have led successive Thai governments to reform higher education.⁵

Types of Higher Education

Institutions of higher education in Thailand are classified into three groups: universities, colleges, and specialized institutions. There are 14 universities including 3 institutes, and 111 colleges. Specialized or professional training institutions consist of three academies of the army, navy, and air force; one police academy; two militar-

⁵ Keith Watson, "The Higher Education Dilemma in Developing Countries: Thailand's Two Decades of Reform," *Higher Education* 10:3 (May 1981):304.

y/police schools; ten other ministries schools; two Buddhist colleges; and the Asian Institute of Technology.

Most of the universities in Thailand are located in Bangkok. According to Ketudat, "Of the 27 government university campuses, 14 or 52% are within the Bangkok Metropolitan area. All other campuses outside Bangkok are located either in or near urban centers."⁶

Most of the students in higher education are in government higher institutions. For instance, "in 1979, of the 468,584 students, 68,661 (14.65%) were in government universities, 320,002 (68.29%) were in Ramkhamhaeng University, 57,731 (12.32%) were in government colleges, 22,190 (4.74%) were in private colleges. There were 9,193 students in the graduate programs."⁷ Also, in 1981, "there were 100,101 students at the bachelor's and higher levels. There were 75,979 students (75.9%) in government universities, (exclusive of the open universities), 24,122 students (24.1%) in private colleges. There were 71,347 students (71.28%) in the Bangkok area, and 28,754 students (28.72%) in the rural areas."⁸

Development of Open Higher Education in Thailand

The idea of extending higher education to the population at large in Thailand dates back to 1933 when the University of Moral and Political Science (later renamed Thammasart University) was established as an

⁶ Sippanondha Ketudat, *System of Higher Education: Thailand* (N.Y.: International Council for Educational Development, 1978), p. 10.

⁷ Ministry of University Affairs, 1983, p. 5.

⁸ Ministry of Education, 1983, pp. 26-28.

open admissions university. Its programs led to a Bachelor of Law. There was no admission requirement. Class attendance was not compulsory; students could study on their own or meet academic staffs on occasion. In the first year, it enrolled 7,094 students. Students were high school graduates, members of Parliament, village representatives, government officials, etc. In 1960, due to the lack of academic standards in the later years, it adopted the closed university system of admission by entrance examination.

In 1971, in response to the social demand in higher education, the Ramkhamhaeng University (RU) was established as an open admissions university, using the lecture method in teaching in regular class and using closed circuit television in a big lecture hall so that more students per teacher can be enrolled per class.

In the first year, it enrolled 35,205 students. At present, there are 7 schools: Law, Business Administration, Humanities, Education, Science, Political Science, and Economics. The Law School enrolled most of the students with about 30%-50% of the enrollment each year (see table 3). The highest enrollment in 1979 was due to the new measurement for high school leavers, a non-standardized examination set by each school.

In 1977, due to its increasing enrollments in each year, distance teaching, namely correspondence, radio and television broadcasts had been added to the existing instructional system. Students can choose correspondence or attend classes or both. However, teaching through broadcasting turned out to be a favorite medium for the students. In 1980-1981, a survey by the RU Educational Radio and Television Committee revealed that "only 16% of the total students regularly attended classes

on campus while 45% and 31% studied by means of radio and television, respectively. The remaining 8% attended classes at the regional study centers or studied from textbooks."⁹ Nonetheless, there were problems such as lack of teachers trained in distance teaching methods, insufficient preparation time for producing radio and television lessons, airing time, student's attitudes towards distance teaching, etc.

Due to the open-door policy with a large number of students, problems faced by the RU can be identified as follows:

1. Inadequate allocation of resources. RU was allocated smaller funds from the government, comparing to other universities, in spite of its largest enrollments. The university funds consists of about 40%-50% from government and about 50-60% from students. Its reliance on classroom instruction began to present problems, especially those related to physical facilities.

2. Graduates' unemployment. This is due to its response to social demand rather than manpower needs. There are more graduates in the field of social sciences (see table 4), whereas the country needs graduates in the fields of health sciences and technology. It is also due to the quality of the graduates and the acceptance of the public. However, at present, more graduates are finding employment.

3. Wastage in forms of drop-out and late graduation. This is due to, inadequate facilities, inadequate supportive organizations, and lack of students' motivation.

⁹ Ramkhamhaeng University, *Ramkhamhaeng University*, Bangkok, 1981, p. 116.

Table 3

RU Student Enrollments in 1973-1982

Faculty/Year	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
Law	22,472	4,403	5,691	8,479	19,044	30,059	45,209	37,504	35,914	30,655
Business Adm.	7,200	2,494	3,226	4,139	11,296	15,584	21,871	19,035	22,715	22,946
Humanities	1,533	536	801	931	2,346	3,958	4,780	4,578	4,773	4,765
Education	4,000	1,293	2,925	1,642	4,883	8,375	10,307	8,336	7,347	8,042
Sciences	-	-	-	581	1,630	1,817	2,615	2,603	2,941	3,171
Pol. Sci.	-	-	-	6,036	12,921	21,102	27,175	26,592	28,107	24,129
Economics	-	-	-	1,453	3,266	3,959	4,979	4,751	5,142	5,265
Total	35,206	8,726	12,643	23,261	55,386	84,854	116,936	103,399	106,939	98,973

Source: RU, Ramkhamhaeng 1981: Facts and Figures, Bangkok, 1982, p. 118.

Table 4
RU Graduates, 1974-1979

Faculty/Yr	1974	1975	1976	1977	1978	1979
Law	473	1,208	1,645	2,378	3,126	3,231
Business Adm.	232	666	706	898	1,161	1,430
Humanities	194	312	495	537	740	782
Education	238	470	644	669	732	1,033
Sciences	10	76	183	298	327	303
Pol. Sci.	36	312	662	1,142	1,506	2,193
Economics	73	317	563	947	1,170	1,224
Total	1,256	3,361	4,898	6,869	8,762	10,196

Source: Ramkhamhaeng University, *RU: The First Ten Years* (Bangkok: Victory Publishing, 1981), p. 119.

Sukhothai Thammathirat Open University (STOU)

Development of the STOU

Higher education in Thailand, namely university education and bachelor's degree-granted colleges, is geared for high school leavers. Education for working adults is offered at the secondary level, and is restricted in time and place of study. It is believed that an open university, devoted solely to distance teaching methods through multimedia, where students study by themselves, will be an appropriate alternative in response to the demand for higher education, and as a means to equalize higher education opportunity. With flexible admission requirements, independent study at place and time of their convenience, without regular class attendance, it is geared to working adults and those in rural areas.

Before its establishment, research was conducted on public attitudes to the Open University and on educational needs. After 3 years of planning, under the guidance of Professor Dr. Wichit Srisa-an, the first and the present Rector, the STOU was created by Royal Charter on September 5, 1978, as an autonomous institution employing distance teaching techniques to provide home-based, self-study education.

It took two years in planning the administrative as well as the academic management, in recruiting the academic staff who would understand as well as be willing to work for this new teaching system, etc. Orientation was organized to make sure that the personnel understand the philosophy behind this system. This period, called "system management and regulation planning," was important. As a new institution, with new teaching methods, it was necessary to establish high quality standards

from the beginning. This was necessary since it would be hard to change the public's attitude towards it if it exhibited low quality at the beginning.

The first enrollment started on December 1, 1980. There were 82,135 students, including 68 Buddhist monks. Two schools were opened on the basis of needs for graduates in teacher education and construction management, as a result of research that indicated need in these areas. As a result, the School of Education, with majors in Primary Education, Secondary Education, or Education Administration; and the School of Management, with majors in Construction Management were opened. These programs were also created according to the capabilities of the university to provide instruction in these fields. The first two years of operation were planned as "system testing", to assess both management and teaching systems and improve as well as expand the system in the future.

Objectives

In general, three underlying basic goals constantly arise in the management of open higher education. They are quality, equality and efficiency. The first is to provide high academic standards, the second concerns the democratization of higher education, and the third is to achieve results with the least cost and effort. The STOU, like other open universities, also subscribes to these goals.

Due to changes in society, it is generally believed that education should be a lifelong process, not rigidly based on certain ages or specific to certain institutes. The education provided by the Open University promotes lifelong education. Degree programs and non-degree pro-

grams to upgrade the educational standards and the professional competence of working adults will improve the quality of life, increase national productivity, and promote social equality in Thailand.

Concerning the increasing demand and equalization of educational opportunity in higher education, especially for working adults and people in rural areas, the STOU provides education for those who missed the opportunity of earning a university education, and for those who want to enrich their knowledge and improve their professional competence. Conventional universities do not provide any programs or degrees for working adults seeking higher education where they can study on their own without class attendance, while in full-time employment. The open university is seen as an alternative for this provision. It also provides education for high school leavers who cannot obtain entrance to a conventional university because of the limited places offered.

The establishment of an open university is a response to provide education, effectively and economically, for the masses and for developing human resources. Distance teaching approaches used by the open university, especially the use of self-study materials, supported by radio and television programs produced by small staffs, can reach a large number of students, no matter where they are. The use of limited resources, for instance, existing facilities such as radio and television broadcast stations, and educational institutions for study centers, can provide education for the mass economically. Use of experts from other universities and from the private sector to produce course or as tutors or counselors, not only makes efficient use of human resources, but also lowers the number of permanent staffs. If the concept of an open university employing distance teaching techniques is not adopted,

the need for additional universities will continue to accelerate.

The establishment of the STOU is believed to contribute to higher education in Thailand. The STOU will provide the opportunity for specialists from outside institutions to participate in the development of the materials. It will be a center for academics to practise their expertise, and this helps promote cooperation among professional personnel in various areas of expertise.

The aims of STOU can be summarized as follows:

- a) to provide and promote academic and professional education to enable people to upgrade their educational qualifications in response to individual and social needs;
- b) to promote research for application in national development;
- c) to provide educational services to society through the dissemination of knowledge, thereby promoting personal development and professional competence; and
- d) to promote national art and culture and encourage an awareness of ethical principles on the part of the general public to strengthen its sense of national identity.¹⁰

Administrative Structure

Headed by a Rector, the university is governed by the University Council and the Academic Senate. Table 5 shows the STOU Administrative Structure.

The University Council is responsible for supervising the conduct of all university affairs, such as formulating policies and establishing university rules and regulations.

The Academic Senate is responsible for the academic affairs of the University, such as setting academic standards and supervising cur-

¹⁰ STOU, Public Relations Unit, *STOU* (Bangkok: STOU Press, 1986).

ricula, instruction and evaluation.

The Office of the Rector is responsible for correspondence, finance and supplies, personnel and general administration.

The Office of Education Services is in charge of the administration and coordination of regional centers, and the provision of tutorial and counseling services;

The Schools consists of ten schools, each has its school board, academic staffs, course teams, and academic assessors (appointed from those considered outstanding in the academic community, to advise on academic standards, curriculum development, instruction, evaluation, and educational services).

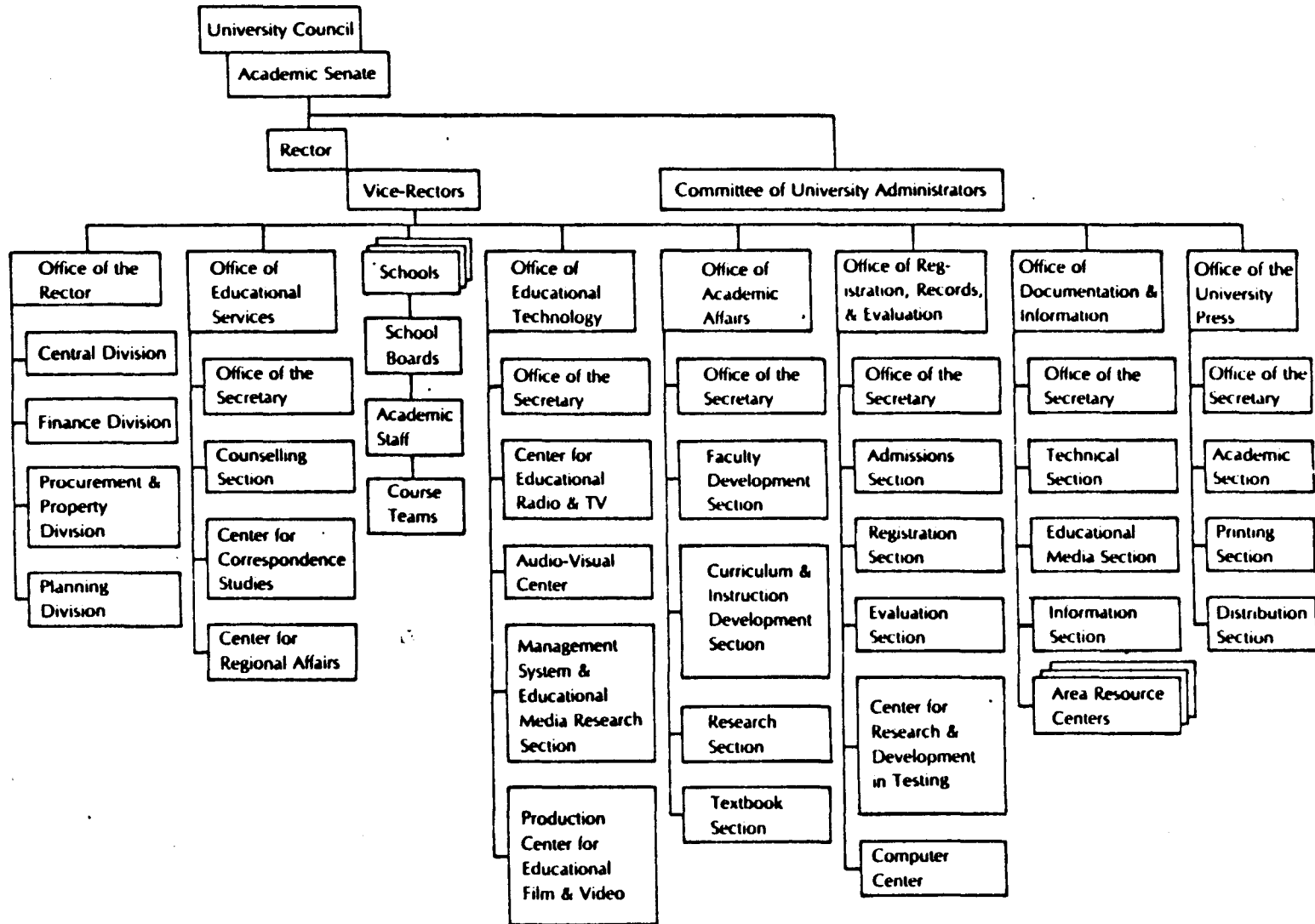
The Office of Educational Technology is responsible for producing instructional materials, providing radio and television services, the University Library, the University Press, audio-visual services, conducting research and evaluating instructional methods.

The Office of Academic Affairs is responsible for all matters connected with curricula, instruction, research, text-books, the preparation of instructional materials and other educational services.

The Office of Registration, Records and Evaluation is responsible for student records, admission and academic achievement records.

Table 5

ADMINISTRATIVE STRUCTURE OF THE UNIVERSITY



Source: Wichit Srisa-an, "The Management and Economics of Distance Education," in Distance Education (Bangkok: STOU Press, 1986), p. 118.

Some significant features in the administration of STOU are as follows:

1. All decision-making is collective. A team approach is employed in the management of the University.
2. As distance education requires a great deal of planning and coordination, the University puts a great deal of effort into preparing the annual operational plan. A two-day intensive workshop on operational planning is organized, and administrators from all offices and departments of the University, together with members of the Academic Senate, attend the workshop to map out the annual plan.
3. A Planning-Programming-Budgeting-System (PPBS) has been initiated in order to ensure efficient allocation of resources for distance education.¹¹

Staff

Academic staffs and personnel are important to the success of the system. It is necessary that staffs understand and are willing to work for the new institution where its philosophy and teaching methods are different from conventional universities. However, the number of full-time staff required is smaller than conventional universities; with prints and broadcastings, one teacher's instruction can reach a large number of students. Normally, one instructor is responsible for 1 bloc (6 credits). Assistance in the preparation of course materials and other services are sought from experts from outside bodies and from academic staffs of other universities whose academic achievement have been outstanding. This assistance has been arranged through borrowing, contracting, or hiring on a full-time or part-time basis. Such a measure

¹¹ Wichit Srisa-an and Tong-in Wongsotorn, *The Management and Economics of Distance Education: The Case of STOU*, Paper presented at the Thirteenth World Conference of the International Council for Distance Education, Melborn, Australia, August 13-20, 1985.

makes personnel utilization much more flexible and economical. In 1983, "the STOU had a total full-time staff of about 521, 38% were academic staffs."¹²

Although the number of the academic staff is smaller than in the conventional universities, the ratio of staff qualification is higher. Table 6 shows the qualification of the academic staff in 1985. There were 127 academic members, 77.95% with master's degrees, and 22.05% with doctoral degrees.

¹² STOU, *Five Years of STOU* (Bangkok: STOU Press, 1983), p. 49.

Table 6

STOU Faculty Qualification by School, 1985

School	Qualification		Total
	Ph.D.	M.A.	
1. Educational Studies	14	15	29
2. Liberal Arts	3	14	17
3. Management Science	1	15	16
4. Law	2	13	15
5. Agr. Ext. & Cooperatives	2	12	14
6. Health Science	-	9	9
7. Economics	2	7	9
8. Home Economics	1	8	9
9. Political Science	3	4	7
10. Communication Arts	-	2	2
Total	28	99	127

Source: STOU, *Distance Education* (Bangkok: STOU Press, 1986), p.134.

Budget

There are two sources of funding: government budget (15%) and university revenue derived from tuitions and fees (85%). Compared with other universities, the STOU receives a smaller allocation from the government. STOU received from 0.5% to 1.7% of the total higher education budget between 1980-1985 (see table 7).

Table 7

Government Allocation to
Higher Education and to STOU

Budget Year	Higher Education Budget	STOU Allocation	Percentage
1980	3,475,909,500	17,731,800	0.5
1981	4,019,747,300	46,857,900	1.2
1982	4,453,835,850	55,037,800	1.2
1983	5,068,237,620	69,647,800	1.4
1984	5,215,200,000	89,573,700	1.7
1985	5,419,621,000	68,136,000	1.3

1 US\$ = 27.00 Baht

Source: Wichit Srisa-an, "The Management and Economics of Distance Education: The Case of STOU," in *Distance Education* (Bangkok: STOU Press, 1986), p. 127.

Curriculum

Programs

1. Bachelor's Degree Program: a four-year program, requires 22 blocs (132 credits) to complete. However, for those who have already earned a certificate, a diploma, or a bachelor's degree in another discipline, they can complete the degree within two to three years by taking 12-18 blocs (72-108 credits).

2. Certificate Program: a one or two-year program for personnel development requires 4 blocs (24 credits) to complete. Up to 1983, there were 1,716 graduates in these programs. Certificate Programs offered are as follows:

- a) Certificate for Teachers
- b) Certificate in Local Administration
- c) Certificate in Government Administration
- d) Certificate in Basic Home Economics
- e) Certificate in Land and Property Law
- f) Certificate in English for Professional Purposes

3. Continuing Education Program: a non-degree program for anyone interested, regardless of the educational background.

a) Special Program (Continuing Education): a joint-program with other agencies for career development of their employees. Students in this program take courses for non-degrees, they only get grade reports at the end of the course. In 1985, about 1,651 employees from the Bank of Agriculture and co-operatives and 30 employees from Bangkok Bank enrolled in the program.

b) Certificate for Achievement Program: Students in this program are allowed to take one course per semester. This program is popu-

lar with working adults seeking personal and professional development. In 1983, there were about 5,000 students in this program.

Schools

Schools are opened regarding career and professional development rather than to disciplines, and taking social needs, manpower demands, and the readiness and capability of the university into consideration.

At present, there are ten schools:

1. Liberal Arts
2. Educational Studies
3. Management Science
4. Law
5. Health Science
6. Economics
7. Home Economics
8. Agricultural Extension and Cooperatives
9. Political Science
10. Communication Arts

In the beginning, the School of Liberal Arts had no students of its own, it provided a number of foundation courses within the framework of other Schools. It started to enroll its students in 1985.

There are plans to provide education at the master's and doctoral degree levels in the near future, since students at these levels are mature and supposed to adjust well to independent study. In 1986, the Educational Studies will offer a master's program on an experimental basis.

Academic Structure

The academic year is divided into two semesters, each consists of

not less than 15 weeks of instruction. There is also a summer course which consists of not less than 6 weeks. This is in the form of intensive teaching classes such as seminars, training workshops, and laboratory work. However, summer courses are not provided for the first year students. Before graduation, students must spend 2-3 weeks in an intensive professional enrichment program.

Courses are arranged in blocs. According to Srisa-an, this facilitates: "a) the integration of course content in an interdisciplinary approach; b) the control of academic quality and standard: where courses are produced by a course team, not by an individual faculty; c) the independent study: it enables students to concentrate rather than diffuse their study efforts; d) the control of registration, tutoring, and testing."¹³

Each bloc represents 6 credits. A student can take at least one bloc, but not more than 3 blocs in each semester. Every student needs to take basic courses in the first year. There are five courses: English, Social Science, Mathematics, Science, and Thai. These courses are optional to those in Continuing Education Programs.

Admission Requirements

For degree and certificate programs, admission requires that applicants have completed 12 years of schooling or equivalent; or are holders of diplomas or degrees from institutions of higher education approved by the STOU Academic Senate; or have completed 10 years of schooling with 5 years of work experience, and are over 20 years of age

¹³ Wichit Srisa-an, "Distance Education Through Multi-Media," in *Distance Education* (Bangkok: STOU Press, 1986), p. 97.

as of the 1st of December of the enrollment year.

For those who study for a diploma, admission requires that they work for at least 5 years, and are over 20 years. For those in a non-degree program, there are no admission requirements.

STOU's Distance Teaching

The STOU's teaching method is different from other universities; it employs the distance teaching methods where there is no class attendance. The teaching and learning are through correspondence, mainly printed materials, the integrated teaching materials which include audio cassettes, radio and television programs, and other media. Students can study by themselves at any time, any where at their convenience. Independent study with limited assistance is emphasized, while periodic tutorial classes at study centers are optional.

The STOU's distance teaching plan (see table 8) is identified as follows:¹⁴

1. Identify educational needs and target groups, through survey and research, to use as a basis for the development of the following stages.

2. Design the curriculum so as to facilitate the use of distance teaching techniques. The STOU academic structure is based on the principle of course integration where different academic areas are integrated into specific categories to facilitate independent study and to facilitate the students' ability to synthesize and apply their knowledge.

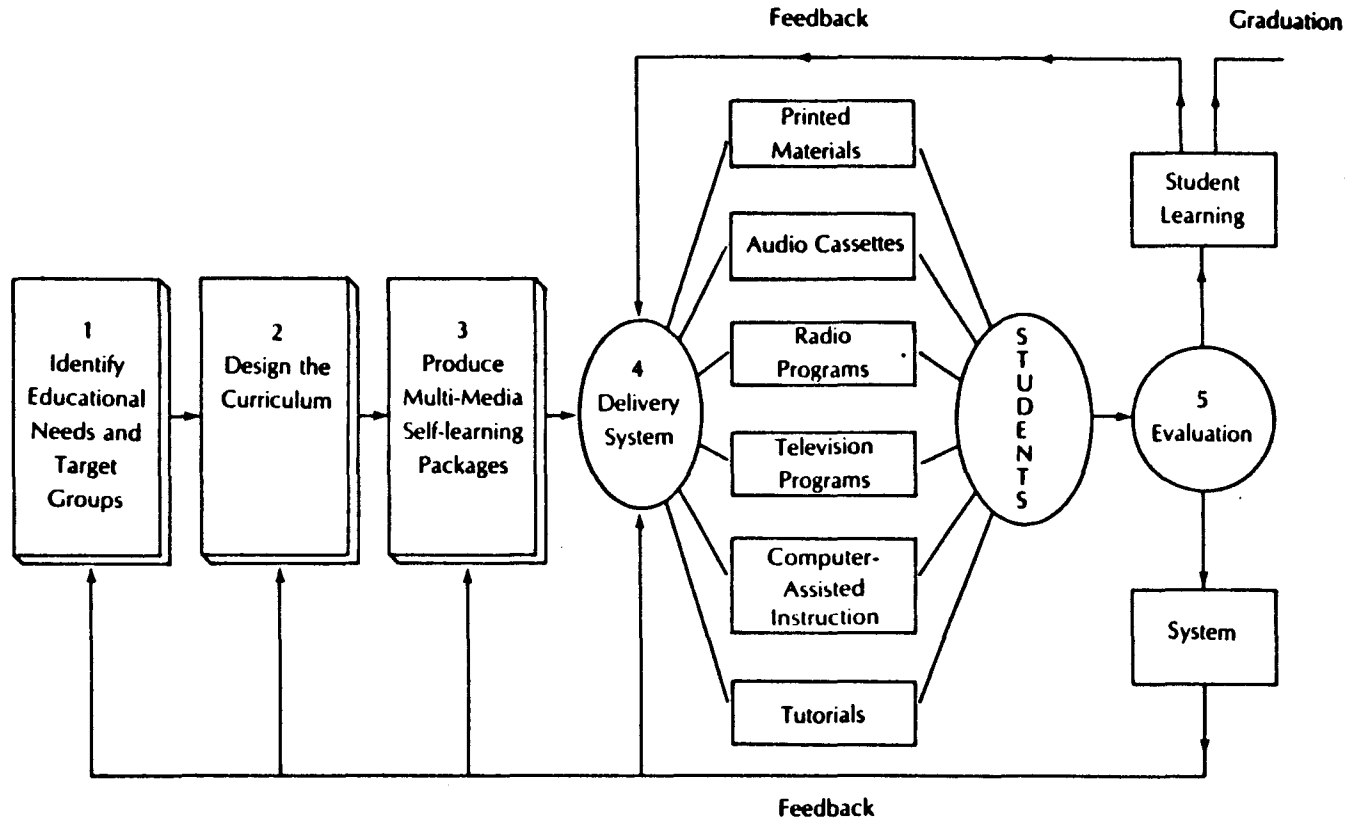
¹⁴ Ibid., pp. 96-98.

3. Produce multi-media self-learning packages which involves the selection of media used, based on 5 criteria: a) availability, the media must be adequately developed, and there must be sufficient personnel to deal with it; b) accessibility, the media used must be accessible to both the institution as well as the learners; c) acceptability, the media used must be acceptable to both the institution and the learners; d) validity, the media used must be appropriate to the objectives that need to be achieved; e) economics, the media used must be cost effective.

4. Establish delivery system: printed materials are mailed to the students, radio and television programs are broadcast throughout the country, tutorials and other educational resources such as slides, movies and so on are provided at local study centers.

5. Evaluate the teaching system so as to improve the curriculum and teaching and learning process.

Table 8
STOU Distance Teaching Plan



Source: Wichit Srisa-an, "Distance Education through Media," in Distance Education (Bangkok: STOU Press, 1986), p. 96.

Course Designs

Learning materials and activities reflect everyday life in Thai society. They are produced by a course team which is comprised of seven content specialists, one educational technologist, and one evaluation specialist. Besides these content specialists, there are other course writers. Some are full-time staffs of the relevant School, others are drawn from various universities and agencies, including some from the business sector. An intensive workshop is organized for them before they construct course materials. Courses produced both by the academic and the experts in that field from the business sector ensure a balance of theory and practice. Experts from the business sector who design courses or supervise practical activities alongside academics, enhance the relevance of courses.

Printed materials used are developed in the form of programmed texts which are particularly effective for independent study, supplemented by other media such as radio and television programs. One course or one bloc consists of 15 units, a unit requires one week of instruction, at least 12 hours per week. Each unit begins with a unit lesson plan which comprises of topics, concepts, objectives, activities, and evaluation methods. Then follows the presentation of the actual content, which is broken down into sections. In each section, there are activities on which the student must work in the workbook, and in each unit there is a pre-test and a post-test complete with answer keys for the students' self assessment, so that they can keep track of their progress.

Teaching Methods

Since the use of media depends on the capability of the university

and the availability of the student, printed materials seem to be the principal medium of instruction. It composes about 80% of the instruction.

Teaching Methods used at the STOU are as follows:

1. *Learning Packages*

The learning packages are composed of:

- a. Printed materials such as textbooks, course objectives, lists of the teaching units, learning methods, etc;
- b. Workbooks, including instructions for doing exercises and pre/post self-assessment;
- c. Audio cassettes: There are between 1 to 15 cassettes per course depending on the nature of the course. The audio cassettes are used to guide students through the course studied, and focus on important concepts and learning methods;
- d. Reading lists: these books and articles are provided at the STOU corner in the public library;
- e. STOU News where schedules of radio and television programs, tutorials, examinations, regulations and announcements are provided.

2. *Radio and Television Programs*

The broadcastings are used to stimulate the students and to reduce their sense of isolation. However, the STOU has not adopted a large scale use of broadcast media as a teaching medium due to the underdeveloped state of the mass communication in rural areas.

Radio Programs: There are 15-17 programs per course, each program lasts about 20 minutes. Programs include interviews, lectures,

drama, and documentaries. The radio programs are used as a form of enrichment, not as a lecture. They are also used as a means for communication between the students and the tutors in order to reduce the students' sense of isolation. It is during the radio programs that students' questions are answered. There are discussions of difficult concepts and problems which arise in the course of study. Before listening to the radio program, students need to study materials related to the program. After the radio program, they need to work on assignments for at least one to two hours per program.

Radio programs are broadcast by the educational radio network of the Public Relations, the 1 P.N. radio station, and other government radio stations, which serve the entire country. Since 1985, STOU has its own modern radio station funded by Japan.

Television Programs: There are about 5-7 programs per course and each program lasts 30 minutes. Programs include plays, lectures, and interviews. Students need to prepare in a manner that is similar to radio study programs. The television programs are broadcast daily by Channel 9 of the Mass Communications Organization of Thailand, Channel 11, as well as by regional television stations of the Public Relations Department.

3. *Other Educational Resources*

Pictures, charts, audio cassettes, slides, movies, etc. are provided at the STOU corner in the public libraries or at the study center. In the near future, microcomputers will be available for certain courses such as Mathematics and Science. Educational video cassettes will also be available.

4. *Tutorials and Counseling Services*

It is realized that students might have some problems studying by themselves through distance teaching, either in the teaching and learning system or with the instructional materials. The university seeks to solve these problems through educational services such as tutorials and counseling.

Tutorials: For every three units, the student is required to attend the teaching center where he/she is grouped for tutoring. This is to provide personal contact, to break down the isolation of the students, and to offer him/her a chance to discuss any problem or aspect of the course content with tutors and with other students. It is during these gatherings that the students develop a sense of belonging to the same institution.

Tutorials are provided at 77 study centers around the country. They are provided on Saturday and Sunday. For each course, there are two to three sessions or ten to fifteen hours of tutorials. These tutorials are designed to help students by answering questions or solving problems, or by emphasizing important concepts to enrich the students' knowledge, ideas, and experiences.

In the first semester of the academic year 1983, "there were three tutorial sessions for 34 courses. There were 1,187 tutors involved, about 24.15% of the students, between the ages of 26-35 attended the sessions. The tutorial course which had the highest attendance was Law 2, with about 41.45% of the students in attendance. Social Science had the lowest tutorial attendance, with only 2.62% of the students in the

course attending."¹⁵ The high or low tutorial attendance rate can be explained by the nature of the course where students can study independently. On the other hand, it might be due to the nature of the students. However, time and distance were not identified as problems.

Tutors can play an important role in supporting student learning. These tutors are recruited from the faculty members of the institutions where the study centers are located or nearby institutions; or they may be experts from any institutions, or the STOU staff in the course team. The use of staffs from the course team in tutorials gives the staff a chance to work with the tutors so as to improve their instructional competencies. It also help the staff get feedback from the students as well as from the tutors so as to improve course constructions.

From the tutorial sessions in 1983, the tutor's characteristics can be summarized as follows:¹⁶

- a) Sex: 60.36% of the tutors are males, 39.64 are females.
- b) Interests in distance teaching method: 74.71% had high interest in distance teaching method, 23.43% had moderate interest, and 1.16% had low interest (0.70% had no opinion).
- c) Understanding the purposes of tutorials: 81.55% saw it as an emphasis and discussions of important concepts, 16.42% saw it as a review, and 1.2% saw it as a lecture, while 0.83% did not understand it.
- d) Tutorial use of questions: During the tutorial session, 11.5%

¹⁵ STOU, Educational Services, *Summary Tutorials Assessment, First Semester 1983* (Bangkok: STOU Press, 1983).

¹⁶ Ibid., p. 54.

of the tutors asked many questions, 51.80% asked a moderate number of questions, 28.10% asked few questions, and 8.52% asked no questions.

Guidance and Counseling: These services will help the student to be familiar with the distance learning system so that they can study by themselves more efficiently. These services are provided through radio, STOU news, documents, and correspondence. Normally, there is also at least one counselor, recruited from the university in that region, at each study center to meet with the students and to advise or give counseling in academic matters.

5. *Assignments or Laboratory Work* (for certain courses)

- a) Self-experimental kits at home, to be used either by themselves or through demonstration by television;
- b) Laboratory work at certain institutions, supervised and assessed by their personnel;
- c) Professional Training at certain institutions where students submit a report at the end of the training;
- d) Seminar;
- e) Simulated situations where students can apply their knowledge, i.e. for students in School of Educational Studies and those in School of Law.

6. *Intensive Workshop and Professional Experience*

Every STOU student who has accumulated the number of blocks required for a degree in a given area must take a comprehensive assessment, either in the form of an intensive workshop or a professional experience. The purpose of these projects is to evaluate the students' knowledge and potential for its application, to enrich their knowledge

and work ethics, and to provide relationship among students and with staffs.

Study Time

Students in a distance teaching university spend as much time studying as those in the conventional universities. The difference is that in the distance teaching system, students study independently through self-instructional materials or through media. While students in the conventional system, spend more time studying in the classroom, and in direct contact with the teacher.

Table 9 shows that students in a distance teaching university spend 240 hours per course studying printed materials (about 15 hours per week for 16 weeks), 5 hours listening to fifteen 20-minute radio programs, 3 hours viewing six 30-minute television programs, and 7 hours listening to three to ten 60-minute cassettes. They also have an opportunity to attend 15 hours of tutorials. Totally, each student spends about 270 hours per course per semester in studying, which is equal to study time spent by conventional students (see table 10).

Table 9

Study Time per Course per Semester
in a Distance Teaching University

Printed Materials	15 hrs/wk	16 wks	=	240 hrs.
Radio Programs	20 mn.	15 programs	=	5 hrs.
Television Programs	30 mn.	6 programs	=	3 hrs.
Cassettes	60 mn.	3-10 cassettes	=	7 hrs.
Tutorials	3-5 hrs.	3-5 sessions	=	15 hrs.
Total			=	270 hrs.

Source: STOU, *Distance Education* (Bangkok: STOU Press, 1986), p. 12.

Table 10

Study Time per Course per Semester
in a Conventional University

Lecture	6 hrs/wk	15 wks	=	90 hrs.
Assignments	12 hrs/wk	15 wks	=	180 hrs.
Total			=	270 hrs.

Source: STOU, *Distance Education* (Bangkok: STOU Press, 1986), p. 12.

Study Centers

Since students are located throughout the country, it is necessary to have local or regional study centers. These are located at the existing local educational establishments, i.e. high schools, colleges, etc. These centers serve as centers for orientation, tutorial services, examinations, counseling, and public relations, as well as centers where students can gain access to instructional materials. There are also STOU Corners at the public libraries where textbooks, reference books, audio cassettes, movies, etc. are provided.

Evaluation System

Standard exams are developed by the STOU. Examinations are conducted at the same time at more than 100 study centers (15% are in Bangkok, about 85% in rural areas) throughout the country. The marks from the final examinations determine the passing grade of each student; class assignments count for no more than 20 per cent for the final grades.

The grading system consists of three grades,

'H' (Honours) over 76%,

'S' (Satisfactory) 60-70%,

'U' (Unsatisfactory) below 60%.

Students

At present, there are about 370,910 students. The highest enrollments are in Management Science, Educational Studies, and Law. (see table 11).

Table 11

STOU Student Enrollments by School, 1980/81-1985

School	1980/81 number	1982 number	1983 number	1984 number	1985 number
1. Educational Studies	75,334 91.70%	10,328 14.85%	12,063 24.07%	20,421 24.01%	17,310 20.74%
2. Management Science	6,805 8.30%	16,225 23.32%	11,163 22.28%	23,839 28.03%	25,263 30.27%
3. Law	- -	29,827 42.88%	14,913 29.76%	18,792 22.10%	16,201 19.41%
4. Health Science	- -	3,985 5.73%	2,061 4.11%	4,401 5.18%	4,743 5.68%
5. Economics	- -	1,553 2.23%	1,932 3.86%	2,786 3.28%	1,938 2.32%
6. Home Economics	- -	2,287 3.29%	2,353 4.70%	3,006 3.53%	3,976 4.77
7. Agr. Ext. & Cooperatives	- -	5,356 7.70%	1,896 3.78%	3,006 3.53%	3,374 4.04%
8. Political Science	- -	- -	3,731 7.45%	4,688 5.51%	4,118 4.94%
9. Communication Arts	- -	- -	- -	4,102 4.83%	5,585 6.69%
10. Liberal Arts	- -	- -	- -	- -	943 1.14%
Total	82,139	69,561	50,112	85,041	83,456

Source: STOU, *Distance Education* (Bangkok: STOU Press, 1986), p. 113.

Students' Characteristics

The characteristics of the students enrolled in 1984 can be summarized as follows:¹⁷

- a) students' age: The average age was 27.4 years.
- b) students' sex: There were 50.60% male and 48.70% female.
- c) distribution of students by region: 23.5% of the students were from the Bangkok Metropolitan area, 76.50% were from rural areas.
- d) students' educational backgrounds:
 - Secondary Education (9.70%),
 - Certificate (31.10%),
 - Diploma (44.40%),
 - Bachelor's (8.40%),
 - higher than the bachelor's degree (0.50%).
- e) students' occupations:
 - Government Official (55.2%),
 - Office of State Enterprise (5.60%),
 - Private Sector Employee (15.20%),
 - Private Business (4.10%),
 - Agriculturist (1.10%),
 - Others (5.80%),
 - Unemployed (10.40%).

It is believed that highly motivated mature students are as important as instruction itself. Motivation, attitudes, and aspirations are important ingredients of success. It is vital that the students have

¹⁷ STOU, Planning Division, *STOU: New Enrollments, Academic Year 1984* (Bangkok: STOU Press, 1985), pp. 8-11.

motivations to start and to persist. In the case of the STOU, Srisa-an noted that "the achievement of the students and the quality of the graduates come from the student characteristics. They are working adults with work experience. They know and are motivated to learn by their own needs, for instance, to upgrade their knowledge, for professional competence."¹⁸

Graduates

STOU degree has been recognized as equivalent to those from the conventional university. In 1982, there were 9,594 graduates from the two-year programs, they were from School of Educational Studies and School of Management Science. In 1983, there were 17,236 graduates; they included graduates from two more schools: Home Economics and Agricultural Extension and Co-operatives. In 1984, there were 11,489 graduates from those four schools included School of Law and School of Health Science. Most graduates are from School of Educational Studies: 85.65% in 1982 and 84.28% in 1983.¹⁹

Conclusion

Higher education in Thailand, namely the conventional university which must be accessed by an entrance examination, provides limited places. Gearing for high school leavers, especially those in the urban areas, makes higher education in Thailand unequally distributed. In 1980, the STOU was established as a distance teaching university, using a multimedia teaching approach, to provide education for the masses,

¹⁸ Paitoon Sinlarat, "Distance Education and Changes in Thai Society," *Karusart Journal (Thai)* 12 (April-June, 1984).

¹⁹ Srisa-an, op. cit., p. 114.

especially working adults and those in rural areas who missed a chance to have access to higher education. The STOU also performs the roles of the university in producing graduates, doing research, providing educational services to the public, and preserving national art and culture.

The STOU's structure and management are different from the conventional universities. It makes efforts to use limited resources, for instance, using of experts from different institutions as course teams or as tutors and using existing facilities to provide education for a large number of people. Courses are offered on the basis of social and national needs. Non-degree training courses are provided for government officials as well as for the business sector.

The teaching method is based on multimedia approach, namely correspondence, supplemented by other media such as radio and television broadcasting and tutoring and counseling services.

In the next chapter, the STOU's contributions to higher education in Thailand and its role in national development will be assessed. Also its distance teaching systems, such as teaching materials, media used, tutorials, and degree acceptance will be discussed.

CHAPTER IV

ASSESSMENT OF THE STOU'S CONTRIBUTIONS

National Development Plans

Like other universities, the STOU has developed an educational plan in relation to the national education development plan, which, in turn, is integrated with the national economic and social development plan.

National Economic and Social Development Plans

The first and second National Economic and Social Development Plans (1963-1966 and 1967-1971) emphasized an educational system which fostered the economic growth of Thailand. The third plan (1972-1976) emphasized education as an investment to produce manpower which prepared the nation for the scientific and technological age. The fourth plan emphasized economic development as a means to fulfill the basic needs of the people.

The general policies of higher education in the Fourth National Economic and Social Development Plan (1977-1981) were as follows:¹

1. To improve the content, the process of learning and the linking of theory and practice in the curriculum. To consider the method of selecting students so that efficient manpower will be trained for the good of society.

¹ Ministry of University Affairs, *Educational Development Plan at the Higher Education Level, Period 5 (1982-1986)*, Monograph, 1982, pp. 14-15.

2. To improve and support the manpower training necessary for national development, such as agriculture, science, medicine and engineering.
3. To organize a community college system by combining teacher training colleges and agriculture colleges into the college system in each part of the country.
4. To develop an open university system, which will be widely available to the public by making use of instructional media and self-instruction.
5. To encourage the private colleges to expand into subjects for which they are ready in order to relieve the burden on the state universities which with government support can then take responsibility for those fields of study which the private colleges cannot undertake.
6. To consider the burden of finance for higher institutes and help them to find ways to earn their own financial support.
7. To mobilize educational resources from governmental, private and popular organizations for improving educational potential and efficiency.
8. To improve educational administration with local participation in accordance with the needs of urban and rural situations.
9. To encourage research and educational evaluation.

It was mentioned in the plan that an open university, using instructional media and self-instruction, be developed to provide education for the public. The STOU, using distance teaching methods (instructional media and self-instructional learning materials) was established in 1980 to provide education for the masses. Course development responds to national manpower needs, for instance, offering degree programs and short courses related to health sciences and programs for personnel development.

To relieve the burden of government financial support, the STOU has its own financial support from students' tuition and fees (about 80% of the revenue). It also uses limited resources efficiently, such as using faculties from other universities and experts from the business

sector as course writers, tutors or counselors. It uses existing educational institutions for study centers, and uses existing radio and television broadcasting stations to broadcast educational programs to the students as well as to the general public.

Higher Education Development Plan

Aims and Policies

The aims and policies of the higher education development plan, which was integrated with the national education development plan and the social and economic development plan during the Fifth Period (1982-1986), were as follows:²

1. To encourage the management of higher education so that it was integrated with the aims and the policies of national education development, especially concerning the institutions' readiness, unity, capability, and social needs;

2. To encourage institutions of higher education to fulfill their roles in producing graduates, in doing research, in providing educational services to the society, and in preserving national art and culture;

3. To improve the structural management and the policies of higher education institutions to be effective and efficient in order to improve the standard and quality of higher education.

To achieve these aims, the following policies were identified:

1. To improve the quality and standards of higher education by

² Ibid., pp. 8-9.

improving the quality of the academic staff and the management system. During the fifth plan (1982-1986), the staff ratio was set at 20% Ph.Ds, 55% Master's Degrees, and 25% Bachelor's Degrees. Their teaching efficiency was to be emphasized and textbook writing was encouraged. Modern resources were to be provided so as to facilitate research;

2. To improve curriculum, content, and teaching and learning methods by balancing theory with practice. In addition, short courses were to be provided to make higher education responsive to the needs of society;

3. To provide educational equality in higher education and to expand the production of graduates in needed fields, particularly, graduates in medical and health science;

4. To encourage basic academic research and to use applied research for national development, especially in energy and technology for rural development;

5. To expand educational services for the society, emphasizing the diffusion of knowledge to the public, offering training, and providing continuing education in various forms;

6. To encourage higher education institutions to participate in promoting the preservation of national art and culture and in promoting ethics to strengthen national identity;

7. To encourage student participation in non-academic activities such as sports, culture, and social programs, in accordance with the national youth development plan and policies;

8. To encourage private colleges to expand programs which are compatible with their institutions to achieve a balance of graduates' production in government universities and colleges, open universities,

and private colleges;

9. To encourage cooperation between higher education institutions and the business sector so that limited resources are efficiently used, including using other resources to support higher education institutions in addition to the government budget.

The STOU's Response to Higher Education Policies

Regarding these policies, the STOU has responded as follows:

1. Academic staff: though there are limited full-time academic staff, the STOU has recruited persons with high qualifications: 78% holding the master's degree, and 22% doctoral degree (see table 11 in the previous chapter). The academic staff of the open university does not teach in classes like those of conventional universities. They are responsible for designing self-instructional materials. Therefore, they are all involved in writing or producing course materials.

2. Curriculum: The STOU tries to integrate theories and practices. For instance, experts from the business sector work with the academic staff to produce courses in which the content is relevant to current problems. In addition, laboratory work, professional training at certain institutions, intensive workshops, and professional experiences before graduation allow the students to apply their knowledge to practical work.

3. Educational equality in higher education: The STOU, using the distance teaching approach, can provide education to the masses, especially, working adults and people in rural areas.

4. Research for academic progress and national development: At this point, the academic staff has a full load in course production. It

is hoped that in the future, when the academic staff is devoting less time to course production, they will spend more time on research. However, the university has conducted on-going research for planning and improving the system. During 1982-1983, the following research was undertaken:

- Analyzing STOU Administrative System, Property and Procurement;
- Developing the Information System for Administration;
- Assessing academic workloads of administrative staff;
- Studying demand in Communication Arts in STOU;
- Assessing attitudes towards the development of the teaching of science and technology by way of the distance education system;
- Study of graduates in the School of Educational Studies majoring in educational administration;
- Assessing opinion towards tutorial lessons;
- Analyzing the effectiveness of the media used at STOU;
- Estimating the cost involved in television production;
- Estimating the demand for radio and television time for educational purposes.³

5. Educational services to society: The university continuing education programs provide education to the public, regardless of their educational background, for personal development and professional competence. In addition, textbooks are available to the public if they need to learn by themselves, without registering, to upgrade their knowledge. Radio and television programs are available to the students as well as to the general public. There are broadcasting programs related to

³ "Example of Distance Learning Institution: Thailand," in *The State of Distance Learning Worldwide*, ed., Walter Perry (Bethesda, Md.: ERIC Document Reproduction Service, ED 254 201, 1984), p. 22.

health, vocations, citizenship, national art and cultural, for the general public.

6. The University's role in promoting the preservation of national art and culture: The University offers courses related to national art and culture to promote awareness of ethical principles as well as to strengthen national identity.

7. Cooperation between higher education institutions: The University has recruited academic staffs from other universities; they work cooperatively with the STOU academic staff as course teams in course production.

Enrollment and Graduate Target Plan

In regard to enrollment, and the number of graduates in the fifth educational plan (1982-1986), the policies were identified as follows:⁴

Enrollments

a. Conventional universities: A rate of increasing enrollment for bachelor's degrees in each field was planned according to manpower needs and existing resources.

A rate of increasing enrollment was expected not to be over 5% per year in the followings fields:

- 1) Teacher Colleges;
- 2) Humanities;
- 3) Fine Arts;
- 4) Law;
- 5) Social Sciences;

⁴ NEC, Educational Planning Division, op. cit., pp. 130-131.

- 6) Business Administration and Accounting;
- 7) Mass Communication;
- 8) Public Relations;
- 9) Natural Science;
- 10) Others.

A rate of increasing enrollment was expected not to be over 10% per year in the following fields:

- 11) Home Economics;
- 12) Mathematics and Computer Science;
- 13) Medical Science and Health Sciences;
- 14) Engineering;
- 15) Architecture;
- 16) Manufacturing and Industry;
- 17) Transportation & Communication;
- 18) Agriculture, Forestry, Fishery;

According to this plan, 33,099 enrollments was expected in 1982, and 37,820 in 1986. The increasing rate was about 3.6% per year, with 5.6% for lower than bachelor's degrees, 2.8% for bachelor's degrees, and 7.2% for higher degrees.

b) Open universities: There was no limit in admission to the open universities, however, it was expected that there would be about 199,769 enrollments in 1982, and 224,866 in 1986. The rate of increase was 3.1% per year, with a decreasing rate of 2% for lower than bachelor's degrees, and 4.4% for bachelor's degrees.

c) Private Colleges: It was expected that there would be 12,744 enrollments in 1982 and 14,589 in 1986. The rate of increase was 3.6% per year, with 1.9% for lower than bachelor's degrees, and 4.4% for

bachelor's degrees.

Number of Students

It was expected that there would be 1,026,000 students in 1982 and 1,434,000 in 1986. The rate of increase was 9.9%, with 5% in conventional universities, 10.7% in open universities, and 5.4 % in private colleges.

Number of Graduates

For bachelor's degrees, it was expected that there would be 44,000 graduates in 1982, and 85,000 in 1986. The rate of increase was 23.3%, with 5% from conventional universities, 44.5% from open universities, and 11.6% from private colleges.

For master's degrees, it was expected that there would be 4,880 graduates in 1982, and 7,300 in 1986 with a rate of increase of 12.5%.

For doctoral degrees, it was expected that there would be 217 graduates in 1982 and 502 in 1986, with a rate of increase of 32.8%.

STOU's Fifth Educational Development Plan (1982-1986)

In planning the STOU fifth educational development plan, the university has followed the objectives and policies of the national educational development plan at the higher education level with regard to readiness, identity, capability of the university and in response to individual and national needs. The main principle of the STOU's fifth educational development plan was to develop the quality and efficiency of distance teaching.

Goals and Policies

In this period, the university also continued to operate according to the conventional expectations of higher education institutions in producing graduates, doing research, providing educational services to society, and promoting the preservation of national art and culture. The policy was identified as follows:⁵

1. *Graduate Production Plan.* By 1986, the university would have 10 schools: Liberal Arts, Educational Studies, Management Science, Law, Health Science, Economics, Agricultural Extension and Cooperatives, and Communication Arts. It would emphasize production of graduates in degree programs. It was expected to have about 500,000 graduates in 1986.

2. *Research Plan.* The university would encourage research projects in various fields, i.e. research and development in the distance teaching projects, research and development in the testing projects, and in the institutional research projects. Since academic staffs devoted their time to course production at the beginning of the plan, they did not have much time for research. It was expected that in the middle of the plan and on, due to the decreasing time spent on course production, more research would be carried out. In 1984, a research and development unit would be established to coordinate and to plan all the research for the university.

3. *Educational Services and Art & Cultural Preservation Plan.* To use limited resources efficiently, the university would provide these

⁵ STOU, Planning and Development Division, *Educational Development Plan, Period 5 (1982-1986)* (Bangkok: STOU Press, 1980), p. 2.

services at the same time as promoting graduate production. Courses for degree programs would also be used for non-degree programs. The radio and television programs for the STOU students would also be available to the public. In 1985, the Office of Continuing Education would be established to provide educational services to the public.

4. *General Management Plan.* The efficiency of the structure and management would be developed to promote a teamwork of the staff.

Aims and Objectives

The STOU, as an open university, encourages lifelong education. It will provide quality education, increase professional competence, and promote educational opportunity for the public in response to individual and social needs. Education will be provided through distance teaching by way of correspondence, radio and television broadcasting, and other media so that students can study by themselves without class attendance.

The objectives of STOU can be summarized as follows:⁶

- a) to provide and promote academic and professional education to enable people to upgrade their educational qualifications in response to individual and social needs;
- b) to promote research for application in national development;
- c) to provide educational services to society, through the dissemination of knowledge, thereby promoting personal development and professional competence; and
- d) to promote national art and culture and encourage an awareness of ethical principles on the part of the general public to strengthen its sense of national identity.

⁶ STOU, Public Relations Unit, *STOU* (Bangkok: STOU Press, 1986).

In Period 5, the university would emphasize the following three objectives:⁷

1. To plan the university's structure and management so as to fulfill its roles in producing graduates, doing research, providing educational services, and promoting the preservation of national art and culture.

2. To efficiently develop the quality of open education, in order to be able to respond to individual and social needs.

3. To expand open education in accordance with the national education development policy and with the capability of the university's distance teaching.

To reach these objectives, the policies were identified as follows:

Graduate Production Policy

1. Expansion in production of graduates in response to the limited enrollment at Ramkhamhaeng University in 1984.

2. Expansion in both certificate and bachelor's degree levels to produce graduates and to train personnel in needed fields for national development.

The STOU graduate qualifications are identified as follows:

1. Graduates should meet academic standards as well as the professional knowledge set by the Ministry of University Affairs;

2. Graduates should have knowledge useful to their living as well as to their profession;

3. Graduates should have good attitudes toward distance teaching

⁷ STOU, Planning and Development Division, op. cit., pp. 4-9.

as well as lifelong education.

Research Policy

1. Promoting research in various fields for academic progress;
2. Promoting research on distance teaching's efficiency, on testing development, and institutional research to apply to the university's educational management, administration, and operation.
3. Establishing a research unit to promote research for national development, especially for rural development.

Educational Services Policy

1. Offering short courses to the public to upgrade their knowledge for professional competence.
2. Disseminating knowledge to the public by various media such as radio and television, to expand educational opportunity.
3. Establishing an Office of Continuing Education to carry out and to coordinate continuing education more efficiently, especially for those in rural areas.

Art and Culture Preservation Policy

1. Providing courses related to art and culture as a part of general education so that students know and understand national art and culture as well as the civilizations of other countries.
2. Promoting research and preservation of national art and culture, especially local art and culture and those of the Sukhothai Period.
3. Disseminating knowledge in art and culture to the public by various media.
4. Developing courses related to the preservation of national art and culture.

Management Policy

1. Organizing management of the system and developing the spirit of teamwork among staffs;
2. Giving opportunities to the staff in different departments to participate in the university's management;
3. Allocating resources from various sources to support the university budget;
4. Upgrading the staffs' qualifications and developing staff to work more efficiently for the "open" educational system.

Instructional Policy

1. Developing curriculum for both general and professional education, and balancing theory with practice according to the academic standards set by the Ministry of University Affairs.
2. Developing courses so that each is complete in itself and students can apply the knowledge to their real life situation.
3. Developing knowledge dissemination by multimedia methods which consist of correspondence, radio and television broadcasting and other media.
4. Cooperating with other institutes to use existing resources to provide education, especially in establishing study centers in various local areas.
5. Encouraging academic staffs to produce learning materials to make distance teaching more effective and efficient.

Admission Policy

STOU is an open university where admission is not limited. However, in the case where educational needs surpass educational resources (i.e., inadequate study materials, inadequate institutions for practical

work), the university will limit enrollments by having those over the limited numbers register in the next semester on a first-come, first-served basis.

Contributions of the STOU to Higher Education in Thailand

Accessibilities

Normally, due to the limited educational resources, conventional universities in Thailand provide limited places. Admission is competitive by taking a national entrance examination. In addition, because studying in the conventional university is restricted in terms of time and place, higher education is impossible for some disadvantaged groups; for instance, people in rural areas, those from lower socioeconomic backgrounds, and working adults. The STOU was established to equalize educational opportunity for higher education, especially for disadvantaged groups. It also provides education, in terms of short courses, for upgrading knowledge to the general public regardless of their educational background. The flexibility of the independent study, in terms of time and place and the flexibility of admission requirements makes it possible for disadvantaged groups to gain access to higher education.

The university's objective to provide higher education opportunity to the masses, especially to disadvantaged groups, has been so far achieved. Most of the students (about 90%) are working adults, with only 10% unemployed (see table 12). Most of them (about 75%) are in rural areas, with less than 25% in Bangkok as shown in table 13.

Table 12

STOU Students' Occupations, 1984

Occupations	Percentage
Government Official	55.20%
Office of State Enterprise	5.60%
Private Sector Employee	15.20%
Private Business	4.10%
Agriculturist	1.10%
Others	5.80%
Unemployed	10.40%

Source: STOU, Division Planning, *Student Enrollments 1984*, (Bangkok: STOU Press, 1985), p. 2.

Table 13

STOU Student Enrollments by Region, 1980/81-1984

Regions	1980/81 number	1982 number	1983 number	1984 number
Bangkok	9,362 11.40%	17,136 24.63%	10,216 21.03%	19,987 23.50%
Central Region	7,730 9.41%	5,403 7.77%	4,218 8.68%	6,680 23.50%
Northern Region	15,105 18.39%	12,187 17.52%	8,784 18.08%	14,867 17.50%
Souther Region	15,075 18.35%	10,138 14.57%	6,846 14.09%	11,423 13.40%
Eastern Region	4,681 5.70%	4,540 6.53%	3,202 6.59%	5,184 6.10%
Western Region	7,286 8.87%	5,181 7.45%	4,024 8.29%	5,822 6.90%
Northeastern Region	22,900 27.88%	14,976 14.98%	11,288 23.24%	21,078 24.80%
Total	82,139	69,561	48,578	85,041

Source: STOU, Division Planning, *Student Enrollments 1980/81-1984*, (Bangkok: STOU Press, 1985).

Regarding the students' educational background, admission requirements for degree programs are flexible, and consider students' work experience. Most students in these programs have had post-secondary education. In 1984, about 90% of the students had post-secondary education, with about 10% having only a secondary background (see table 14). However, for non-degree programs, short courses are offered to students regardless of their educational backgrounds.

Table 14

STOU Students' Educational Backgrounds, 1984

Secondary Education	9.70%
Certificate	31.10%
Diploma	44.40%
Bachelor's Degree	8.40%
Higher than Bachelor's Degree	.50%

Source: STOU, *New Enrollments, Academic Year 1984* (Bangkok: STOU Press, 1985), p. 2.

Regarding the students' economic background, the STOU gives lower income students with an opportunity for a university education. In conventional universities, full-time students are enrolled in seven courses (18-21 credits) per semester. In STOU, students can study while they are employed. They can take one course per semester and study independently. They can also financially support themselves.

Table 15 shows the STOU students' expenses in terms of tuitions and fees. Students in a four-year bachelor's degree program require 22 blocs (132 credits) to complete. If they take 3 blocs per semester,

they will spend about 10,150 baht. Based upon an average student income in 1984 of 3,500 bahts, they spent about 6% of their income to complete a degree.

Although cost per student in the open university is lower than those in conventional universities, it is not considered cheaper. However, due to the large number of students and the use of standard learning materials, the cost is lower.

Table 15

STOU Student Expenses on Tuition Fees and Study Materials:

Admission fees	150	baht
University fees per semester	150	baht
Tuition fee per course	200	baht
*Educational materials per course	200	baht
1 US\$ = 27 baht		

* Educational materials include textbooks, workbooks, audio-cassettes.

Source: Wichit Srisa-an and Tong-in Wongsotorn, "The Management and Economics of Distance Education: The Case of STOU," in *Distance Education*, (Bangkok: STOU Press, 1986), p. 129.

However, table 16 shows that most of the students are from middle and higher income groups, with about 30% from the middle monthly income group (2,000-3,000 baht) and with about 32% from the higher category of monthly income.

Table 16

STOU Student Enrollments by monthly income, 1984

Monthly Income	% of students
Under 1,000 baht	1.50%
1,001 - 2,000 baht	11.40%
2,001 - 3,000 baht	31.40%
3,001 - 4,000 baht	15.20%
4,001 - 5,000 baht	8.00%
5,001 - 6,000 baht	3.70%
6,001 - 7,000 baht	2.60%
Over 7,000 baht	3.80%
Unidentified	22.40%

1 US\$ = 27 baht

Source: STOU, *New Enrollments, Academic Year 1984*, (Bangkok: STOU Press, 1985), p. 45.

The STOU has not only widened access in terms of numbers but also has been successful in attracting specific target groups, which were earlier identified. The STOU began with two schools based on individual, local and national needs. Teachers were selected as one target group, not only based on the teachers' needs of certification but also

as a target group to test the distance teaching system. Srisa-an noted that "teachers are: a) a large group and are everywhere around the country, in the urban as well as in the remote rural areas; b) supposed to be well adjusted to independent study, since normally they need to upgrade their knowledge for teaching, or for certification."⁸ It is evident that the School of Educational Studies has attracted high enrollments each year since its establishment.

Teaching and Learning

1. Use of multimedia approach in teaching: It has motivated conventional universities to develop teaching media. It also encourages using different approaches in teaching, and utilizing educational technology in teaching, such as broadcastings, audio/vedio cassettes, telephones, and computers.

2. Independent study: Independent study is vital in any forms of learning, even in conventional universities. It should be instilled in students so that they learn throughout their life, not only when they are in school.

3. Use of course teams: Learning materials in the open university are produced and controlled by a course team which comprises experts in various fields from different institutions, academics as well as persons from industry and business sectors. The quality of these materials is high and the course content is both relevant and practical, due to the use of experts from industry and business sectors. In the conventional

⁸ Paitoon Sinlarat, "An Interview with Dr. Srisa-an: Distance Education and Changes in Thai Society," *Karusart Journal* 12:4 (April-June, 1984).

university, normally teaching materials and the academic standards are controlled by one academic staff. Textbooks often reflect western rather than Thai society. However, at present, the academic staff in conventional universities is encouraged to write textbooks that are relevant to Thai society.

4. Changes in attitude about work and study: Normally, higher education in Thailand is seen as a continuation from high school, where students spend a period of time studying and can work only after graduation. The open university build a new attitude that students can study while they are employed. This can also help students relate their study to their work, balancing theory with practice. In addition, studying according to their own interests and needs, i.e. for their professional competence, brings about learning motivation. In conventional universities, where students need to study full-time, they cannot be employed. They lack professional experience to relate or apply their knowledge to their future work.

Structure and Management

1. Cost Efficiency: UNESCO has identified STOU as a "lead institution", in the Pacific Oceania area, to demonstrate the efficient use of limited resources to provide high quality education to the masses. To maximize limited resources, existing facilities such as radio and television broadcasting stations, local educational institutions for study centers, and academic staffs from different institutions as course teams, tutors, or counselors are used.

The STOU can produce graduates of high quality, compared to conventional universities, at lower cost. It provides education for a

large number of students. Normally, open universities with a large number of students have a lower average cost per student than conventional universities. Table 17 shows that cost per student in the open universities (RU and STOU) is about 90% lower than in conventional universities in the same field of study. This calculation, however, involves only operating costs and excludes investment costs such as those related to facilities.

Table 17
Operating Cost Per Head in
Conventional Universities and Open Universities in 1980

Disciplines	Conventional Universities	Open Universities	Percentage
1. Business Adm. & Commerce	14,942.07	1,695.95	11.35
2. Natural Science	19,778.15	972.72	4.91
3. Teacher Education	20,507.39	638.08	3.11
4. Social-Behavioral Science	13,435.97	591.84	4.40
5. Law	11,970.81	461.34	3.85
6. Humanities	14,332.56	305.36	2.13

Source: STOU, *Distance Education* (Bangkok: STOU Press, 1986), p. 129.

With a large number of students, the university has derived students' tuitions and fees for about 80% of the university's overall revenues and only about 20% of government allocation (see table 18).

Table 18

Government Allocation to STOU
and STOU Revenue, 1980-1985

Budget Year	Government Budget		University Revenue	
	Amount	%	Amount	%
1980	17,731,800	32.07	37,558,000	67.93
1981	46,857,900	30.76	105,840,000	69.24
1982	55,037,800	24.57	168,931,800	75.43
1983	69,647,800	21.10	260,400,000	78.90
1984	89,573,700	22.72	304,600,000	77.28
1985	68,136,000	18.32	303,808,460	81.60

Source: STOU, *Distance Education* (Bangkok: STOU Press, 1986), p. 127.

In comparison to conventional universities, the STOU receives a smaller allocation from the government. STOU received from 0.5% - 1.7% of the total higher education budget between 1980-1985 (see table 7 in the previous chapter).

One indicator of cost efficiency can also be seen in terms of benefit of the learning achieved. The quality of education provided by the STOU can be noted by the acceptance, for instance, of the STOU students to graduate studies, and the use of the STOU teaching materials, such as textbooks and television programs by conventional universities, which

shows that STOU teaching materials are of high quality and conformity to academic standards. In addition, STOU graduates exhibit such characteristics of having had more work experience, and maturity. They are motivated to learn on their own. They can relate and apply what they learn to their work experience.

2. Cooperation among higher education institutions: It is necessary that staffs work as a team within the university and with the outside staff from other institutions for course production, tutoring, etc. or else addition investment is needed. The use of academic staffs from different institutions not only calls for cooperation among higher education institutions, but also makes efficient use of human resources.

Contribution of the STOU to National Development

Manpower Needs

The STOU programs are designed to meet individual, local, and national needs. They are to produce graduates to meet the manpower needs, especially the continuing education programs. The STOU has provided training resources (career development) for several government as well as private agencies. It also offers teaching programs needed by the nation, such as agricultural extension and cooperatives and health sciences.

Human Resources Development

Educational programs are provided for the public, such as those related to health, vocational training, citizenship, etc., which will promote the quality of life as well as economic improvement.

One of the objectives of the STOU is to provide educational servi-

ces to the public, in the form of continuing education through distance teaching, so that they can upgrade their knowledge and improve the quality of life. This takes three forms:

1) The dissemination of knowledge and information via mass media:

The public has access to the educational radio and television programs offered to the STOU students. They can also buy textbooks and study these programs by themselves. Besides these programs, there are also programs for the general public; for instance, the television programs, "education for life" and "progress education", where new technology is presented. Both are broadcast twice per month.

2) Special Programs: The university has co-operated with various agencies in setting up programs for personnel development such as:

- an educational and training program for staff of the Department of Local Administration, sub-district and village-level administrators, and others who are involved in administrative work;
- a staff development program for the Department of Lands;
- a program to improve the qualifications of the agricultural extension and cooperatives officials;
- a program to develop elementary school administrators throughout the country;
- a program to train Bank employees and to produce self-instructional texts to be used in staff development program at the Bank;
- training programs for staff members of the Social Welfare Council.

3) The Certificate of Achievement Program: a non-degree program offered to the public, regardless of age, educational background and profession. The aims are: a) to enable working people to develop their skills and gain the kind of knowledge essential for their professional competence, and b) to broaden their understanding or to increase their knowledge of a given subject.

The Learning Society

The main philosophy of the STOU is lifelong education. It makes learning possible to the public no matter where they are and at any period of their life. The STOU builds a "learning society" by providing educational opportunity using distance teaching approaches, emphasizing independent study, having flexible admission requirements, thus making education available, for instance, to disadvantaged groups. The radio and television programs offered to the STOU students are available to the general public. These programs are in the form of documentary enrichment. "STOU corners" in provincial public libraries throughout the country also provide services for students as well as the general public. The availability and the accessibility to education resources promote learning as a lifelong process.

The educational opportunity provided by the STOU, in terms of degree or non-degree programs, gives people a chance to access education, regardless of their location or previous educational background. People are thus given the hope and motivation to work when they know that they have a chance to improve their knowledge for career improvement or for promotion. It also assists the rural population to spend their free time efficiently in studying at home.

National Identity

The STOU has promoted national art and culture and promoted awareness of ethical principles to strengthen national identity. There are courses related to national art and culture. These courses are offered as a part of the general education program for the STOU students, as well as to the general public by way of radio and television programs.

Conclusion

The establishment of the STOU constitutes a major innovation in the history of Thai higher education. Its "open education" and its "distance teaching system" have contributed to higher education in Thailand in terms of: a) its accessibility: With flexible admission requirements and the use of distance teaching approach, the STOU can provide education for the masses, especially for working adults and people in rural areas whom higher education had never been available; b) its teaching and learning methods: using self-instructional materials and multimedia approaches in teaching, and using course teams to control academic standards; c) its management and structure which make efficient use of limited resources such as using academic staff as well as experts from different institutes as course teams or tutors, using existing broadcasting stations, using existing schools and colleges for study centers; d) changes in attitudes about work and study that students can work at the same time that they are employed. Learning while they are employed also helps students relate and apply their knowledge to real working situations, again creating a balance of theory and practice.

The STOU has also contributed to national development in terms of: a) manpower needs: Program offerings respond to national needs, especially programs related to health science as well as training programs for staff development; b) availability of educational opportunity such as degree, non-degree, and broadcasting programs promotes a learning society as well as develops human resources.

The next chapter will summarize what is meant by "distance education" in terms of its characteristics, the STOU distance teaching system, and the contributions of the STOU to higher education and to

national development in Thailand. In addition, some recommendations are made for further studies and for improvement of the distance teaching system.

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Characteristics

Distance education, in general, can be characterized as non-contiguous teaching where teacher and students are separated, and their communications are through media, for instance, correspondence, broadcasting, audio/video cassettes, telephone, and computers. It is differentiated from traditional education which is characterized as contiguous teaching, where teacher and students interact in the classroom.

Distance education on the university level, for instance, correspondence study, university extension programs, open university (autonomous distance teaching institutions) and external study, with the use of distance teaching systems such as mass-produced standard packages (gearing for independent study), broadcastings and other media, provides a learning opportunity for large numbers of people for whom higher education had never been available, enabling them to return to school without leaving their jobs. The flexibility of time and space, where it reduces a student's time away from work and for transportation, is one of the advantages of the system. It also provides the flexibility and adaptability needed to meet individual needs, especially in job-related training.

Development of Distance Education Theories

Despite its advantages, distance education has always been criticized for having low academic standards, high dropout rates, and low completion rates. Criticisms of its academic standards have stimulated educators in this field to develop theoretical frameworks for decision-making in an effort to develop and improve the system. For example, as has been discussed in Chapter 2, a number of educational theories can be related to distance education. Some theories stress the learners' autonomy and independence and encourage learning according to their needs and interests. Other interactive learning theories emphasize communication between the teacher and the learners, through learning materials (simulated communication) or by face-to-face meetings (real communication). These various educational theories and instructional models based on them should be considered in course designs to facilitate independent learning.

The STOU in Thailand

Due to the success of the British Open University in achieving high academic standards, the Open University or Distance Teaching Universities have proliferated in the 1970s and in the 1980s. In Thailand, in 1980, in response to social and national needs, the STOU was established as a distance teaching institution, using multimedia teaching approaches to provide education for those who lack a chance in higher education for whatever reasons and for those who need it for professional competence. Its contributions to higher education and to national development were discussed in Chapter 4.

STOU's contributions to higher education are as follows: a) its

accessibility has equalized educational opportunity by extending education to previously neglected or poorly served groups such as working adults, rural population, and those who need to upgrade their professional competence; b) its teaching and learning system which uses course teams of academic staff and experts from the industry and business sector to design high quality learning materials which reflect Thai society and are relevant to real life problems, uses of multimedia approaches and self-instructional materials to facilitate students' independent study; c) its efficient management which uses limited resources to produce high quality learning materials for a large numbers of students by using existing broadcasting stations to broadcast educational programs and local schools or colleges for study centers; d) changes in attitudes about work and study where employment of multimedia approaches makes education available to working adults who do not have to leave their work to attend classes. Also, since these students are already employed, graduates of the STOU do not increase the numbers of unemployed graduates as does conventional universities.

Its contributions to national development are: a) manpower needs: the STOU offers programs that are relevant to national needs. For instance, it produces graduates in required fields, offers short courses and training for professional competence; b) human resources development: as Daniel has noted:

Many thousands of youth are denied the opportunities either to develop their own potential or to contribute fully to the social, cultural, and economic life of their nation because they cannot continue their education to an appropriate level. If distance education is given the chance to fulfill what many see as its true potential, it will be in this area that it makes its essential

contribution.¹

Thus, distance education can provide educational opportunity to the masses by way of short courses to train personnel in needed fields, disseminating knowledge to the general public via broadcasting, and help improve the quality of life of the general public. Distance education also builds a learning society where individuals take responsibility for learning throughout their lives, and where people can gain access to learning resources or learning opportunities diffused through various communication media. Such learning improves a person's life, career, income, and welfare as well as improving the community and nation; and, finally, c) national identity: courses or programs related to national art, culture, and ethical principles promote and strengthen national identity.

The STOU's distance teaching system, as discussed in Chapter 4, has achieved the following goals:

1. Learning materials: The development of quality learning materials has been achieved. These materials, produced in a format that facilitates student usage, are appropriate to the subjects, providing a variety of learning activities such as reading, writing, listening to broadcasts, using audio-visual aids, attending face-to-face tutorials, and undertaking practical work. These learning activities are considered comparable to those in conventional universities.

2. Programs: Programs offered are relevant to individual, local, and national needs. For instance, programs in health science are offered due to national needs in this field, and training programs for

¹ Daniel, op. cit., p. 53.

personnel development are provided for government officials as well as for private institutions to meet individual as well as local needs.

3. Management in terms of its cost efficiency: The STOU chooses the teaching methods or media that give the best results at the lowest costs. Although it is generally considered more expensive to use a course team to produce learning materials, the use of materials by large numbers of students makes this procedure cost-effective. Due to the large number of students, the cost per student is lower than in a conventional university. It is also financially supported by the students' fees (about 80% of the budget). In addition, the quality of education provided by the STOU, the benefit of the learning achieved, the use of limited resources, all contribute to bringing about cost efficiency.

Recommendations

While the STOU can be characterized as unique and generally successful, certain recommendations need to be made.

Teaching

The quality of teaching exhibited in course designs, content, learning activities, and the use of media all reflect quality of education, one of its most effective contributions.

1. Distance education should not, however, duplicate the work of conventional universities. Rather, distance education should be utilized to supplement, advance, and assist in the total educational process, not as a rival against specific ones. Thus, for instance, the independent study approach could be applied to both conventional and non-conventional education.

2. General guidelines for course designs should be established.

3. Principles for designing learning materials, discussed in Chapter 2, should be put into practice. For instance, Holmberg's guided didactic conversation where learning materials are presented in a personal style, colloquial language, with clear explanations, and with specific advice and suggestions (i.e. paying particular attention to certain concepts). Likewise, different teaching models, such as Bruner's discovery model, Ausubel's organizer model, and Baath's approach to course designs, should also be incorporated in designing learning materials.

4. General principles of learning and teaching should be related or applied to specific instructional conditions.

5. Teaching materials should provide a variety of learning experience and more opportunity for problem solving to stimulate students' reaction. Programmed texts should include more dialogue to motivate students to be active learners who interact with the materials.

6. Learners' needs should be anticipated. Questions and problems should be anticipated, and a wide range of possible responses should be prepared for unexpected problems.

7. Teaching should balance independent study with support services.

8. Research should be conducted on students' learning styles to determine appropriate types of media needed and support services required.

9. Educational technology such as the use of media and its effects should be studied, since the effective use of media depends on the subject and student educational and socio-economic backgrounds. For instance, for some courses, the amount of radio broadcasting programs

can be decreased, while the use of audio-cassettes can be increased. However, radio broadcasts can be used in general as motivation toward pacing and completion, while audio-cassettes can also provide a means of self-pacing.

10. The functions and benefit of broadcasting programs should be clear to the students so that they know what to expect from them. For instance, they can be active during the broadcast by answering questions raised, and they can discuss the relationship between information in the broadcasting programs during tutorials.

11. It is believed that quality of personnel who understand the philosophy and process of the open university is one ingredient of success. Programs for staff development should be provided, especially for course designers and tutors.

12. The methodology of independent study and comparison of independent study with other instructional methods should be studied.

In addition, Neil has made some interesting suggestions to bring about the quality of the education provided by the distance teaching institutions. He has suggested that distance teaching institutions should:

- 1) create and produce learning materials of exceptional quality;
- 2) use well-conceived teaching styles, teaching methods and student-support services clearly designed to promote effective independent learning;
- 3) design curricula manifestly relevant to specified and real needs for education;
- 4) avoid excessive unorthodoxy or adventurousness while maintaining a prudently innovative approach to curriculum design, and
- 5) carefully evaluate student performance and consistently analyze

and use feedback information to improve their systems.²

Support Services

Not only course design but also the amount and types of support services (frequency and types of feedback) are important to achievement and completion rates. In conventional education, learning is more interactive and supportive. Teacher and students can discuss problems in the classroom and students can interact among themselves. In distance education, independent study can make the students feel isolated in that they lack stimulation or competition against classmates. They need some methods to support and to reinforce motivation toward completion. Support services should be provided by the distance institution including tutoring and counseling services through correspondence, telephone, audio-cassettes (for scattered groups of students), and face-to-face contacts.

1. The functions of tutors, counselors, learning materials, tutorials, and relations between learning materials and tutoring should be clearly defined so that students know what to expect from them, and the tutors know what to provide to the students.

2. A particular approach to tutorials should be established. Course teams should provide guidelines or notes to tutors and guidelines to the students for independent study.

3. The university should have full-time regional academic staffs, responsible for recruiting, training, and supervising part-time tutors.

4. Course teams should get involved in tutorials, as a feedback to

² Michael Neil, *Education of Adults at a Distance* (London: Kogan Page, 1981), p. 41.

improve course designs and as a link to tutors and students.

5. Since tutors have become an important component of distance teaching, tutors should be carefully selected for their content expertise as well as interpersonal skills. They should understand their roles such as giving feedback by marking and commenting on assignments, motivating students toward completion, humanizing and facilitating students' independent study by acting as resource persons to help the learners in making their own decisions.

6. A workshop or a basic course should be provided for the students so that they learn how to learn and conduct their own learning. Study skills such as forming generalizations, looking for principles or finding basic ideas, note-taking, relating materials, remembering, etc. should be developed for the students. They should also be able to generate study schedules for self-pacing and make the best use of time since poor time management has been noted by educators as a cause of withdrawal.

7. Student learning style and learning needs should be considered in planning tutorials. For instance, which type of instruction is needed by the students and how should the tutors provide the type of instruction and/or help needed.

8. The academic deficiencies of some students should be remedied through tutoring or support services.

9. Pacing system such as deadlines, more correspondence during the semester, provision of learning activities, special programs, and assignments should be imposed in contrast to exclusive self-pacing systems.

10. Beside self-assessment questions in the workbook, either in

form of multiple choice questions or questions requiring short answer responses, the assessment of student achievement should include more written work submitted to tutors during the academic year. It is believed that intensive feedback, increased personal and supporting comments would increase students achievement and decrease withdrawal rates. In addition, these continuous assessment grades can be combined with the final examination grade to determine an overall final grade.

11. Counselors serve as advisors. They are responsible for consulting on academic matters and educational context. Counseling is an individualized service to meet the students' diverse needs since some students cannot succeed through self-instructional materials. Distance institutions should provide pre-enrollment counseling services such as distribution of leaflets and handbooks related to distance learning, any information related to distance learning and school work; post-enrollment counseling services such as face-to-face meetings with students, individually or in groups, and a follow-up procedure to ensure that students are correctly enrolled, equipped with learning materials, accessed to educational services and resources; and ensured of continuous counseling by regular mail, telephone, or face-to-face meetings to discuss study problems or programs.

Programs

Programs at the master's and doctoral levels should not be expanded beyond their current availability. Development should focus on a horizontal level especially on non-degree programs; emphasizing de-institutionalized learning, for instance, providing workshops and television/radio programs. Limited resources should be used to access the

greatest number of individuals possible. Distance education should enable learners to participate in learning without the need to pursue academic degrees or other types of certification as a reward.

The curriculum should blend general education and professional education, stress a unified approach to the study of modern society, culture, and science, for the understanding of society to provide a basis for the educated citizen. The general education should include democratic ideology, awareness of sociopolitical rights and responsibilities. It should give basic tools required to lead a productive life as productive members of society, and to participate in democratic living.

Students

Students' characteristics should be studied to identify needs and interests so that decisions on materials and support services can be rationally made.

1. Research on what causes students to learn or fail to learn in these types of programs.

2. The major purposes of such study in terms of, for instance, professional upgrading or for personal fulfillment, for academic credit or for noncredit vocational training.

3. Students' attitudes toward independent study need to be researched.

4. Students' motivations, learning styles, educational and social backgrounds, as well as occupations need to be studied.

5. Short-term objectives and criteria should be established to evaluate student achievement and general goals to see if needs are being met and how well students achieve in relation to the purposes of the

courses they are taking.

6. Students' attitudes and needs towards support services, in terms of what types of support services they need; for instance, more interactions between students and tutors, more interactive dialogue in the learning materials, and so forth.

7. Student satisfaction with the distance teaching system, such as its learning materials, broadcasting programs, support services, should be studied to determine the quality of materials and the quality of education provided.

8. More research needs to be carried out on student's completion rates.

9. Research on graduates acceptance in academic and public circles as a result of the quality of the learning that has been achieved.

10. The public's awareness of the STOU among educated or middle class groups, factors that stimulate the demand for such education, such as students' success, courses offered, the role of the media, and increasing enrollments, need to be studied.

Evaluation

Formal evaluation programs for all aspects of the system such as programs, teaching materials, support services, student achievement, should be established for decision-making and planning to develop and improve the system. For instance, formative evaluation should be conducted to see if distance teaching in terms of learning materials, broadcasting programs, and support services works out effectively. In addition, summative evaluation should be conducted by comparing the outcomes with the objectives to see if the outcomes have been attained.

Likewise, policy research needs to be conducted where on-going institutional research on administration and academic activities is conducted to make suggestions for improvement.

Some educators in the field of distance education such as Rumble, Keegan, Gough, Gooler, among others, have suggested some criteria against which distance teaching institutions or distance teaching programs can be assessed.

Rumble and Keegan have suggested five general areas for analysis of distance teaching universities as follows:³

1. What have the Distance Teaching Universities been established to do? What are their objectives?

2. What kinds of students are attracted to the Distance Teaching Universities?

3. What media do the Distance Teaching Universities use, and to what extent are they actually making use of the "new educational media," and particularly broadcasting?

4. How good are their academic standards?

5. How cost-effective are they?

Gough has suggested, additionally, certain criteria to assess distance teaching institutions as follows:⁴

1. To be considered useful and valid, a distance education project must rest on an articulated philosophical and organizational framework. For instance, a framework of who will be taught (target groups), what

³ Rumble and Keegan 1982, pp. 203-206.

⁴ J. E. Gough, *Distance Education Systems: How to Assess Them* (Bethesda, Md.: ERIC Reproduction Service, ED 224 431, 1980).

they are taught (range of course), how they are taught (teaching techniques) should be established.

2. There must be specialized instructional techniques to meet the distinctive needs of distance learners: a) production of materials which will facilitate independent study is appropriate to the adult learners and to subjects or disciplines; b) a delivery system in terms of the efficient use in mailing materials, processing assignments, and dealing with students enquiries, records and files; c) strong student support services in the forms of tutoring, counseling, and supplemental instruction.

3. The resources must be available, for instance, there must be trained personnel to produce effective learning materials, enough budget, equipment, space, and learning resources.

4. In the opinion of most distance educators, strong student support services in the form of tutoring, supplemental instruction, and counseling must be established. For instance, support services must be adequate, and counseling on career advice, tutoring, and supplemental instruction must be available.

5. Provision must be made for staff development. For instance, provisions for training of academic staff in preparation and production of materials, delivery of courses through the use of media, and provision of support services to students.

6. On-going evaluation of the project.

Gooler has proposed some criteria to evaluate distance education

programs as follows:⁵

1. Accessibility to new target groups: how many and what kinds of people are served.

2. Relevancy of programs to national, local, and individual needs,

3. Quality of education such as quality of programs, materials, support services, graduates, etc.

4. Extent to which the learners achieve, assessed against institutional goals, or students' personal goals.

5. Cost-effectiveness in which lower costs can produce quality education and graduates comparable to conventional institutions,

6. Institutional impact which includes influences upon the goals, policies and practices of other institutions and society in general,

7. General knowledge: the extent to which distance education contributes knowledge useful to a better understanding of learning process.

It might be helpful if the STOU can bring these suggestions into consideration in assessing and evaluating the programs and the distance teaching system. These suggestions might also be useful as guidelines for planning and formulating a framework.

It should be noted that distance education, like other educational institutional systems, has its advantages as well as its disadvantages, its capabilities as well as its limitations. Zigerell has pointed out:

Admittedly, it is difficult to say what is meant by the term "effectiveness". If the question is phrased, "Is distance education as effective as conventional education?" It is tempting to answer with another question: "How effective is conventional education or conventional teaching?"⁶

⁵ D. D. Gooler, "Evaluating Distance Education Programs," *Canadian Journal of University Continuing Education* 6:1 (1979), pp. 46-50.

The STOU, like other distance teaching institutions, has tried to establish academic standards by improving the teaching methods such as course designs, the use of media, tutoring and counseling, etc. In addition, it tries to expand educational services to the general public to build a "learning society" so as to fulfill its philosophy which holds that learning is a lifelong process. I believe that the STOU has made great contributions to both higher education in Thailand in terms of its distance teaching methods, and to national development as a whole in terms of the provision of training programs for manpower needs and the educational accessibilities for a "learning society".

⁶ Zigerell, op. cit., p. 5.

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

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

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