

Thesis
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THE INTEGRATION OF PRINT, RADIO AND TELEVISION
MATERIAL IN TERTIARY DISTANCE LEARNING COURSES WITH
REFERENCE TO THE OPEN UNIVERSITY (UNITED KINGDOM)
AND SUKOTHAI THAMMATHIRAT OPEN UNIVERSITY
(THAILAND)

by

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ABSTRACT

The success of a distance education institution depends greatly on the effectiveness of its media system. Distance learning courses are normally designed in the form of integrated multi-media packages. To design an effective distance learning course, careful selection of media must be taken into account. This is because it is believed that the right choice of medium for instruction, together with careful integration of components in multi-media learning packages, can enhance students' learning skills.

The main concern addressed in this study is the criteria used in the selection, design, and use of media in distance learning courses in the Open University of the United Kingdom (OU) and Sukothai Thammathirat Open University, Thailand (STOU). The study observes two different kinds of integration employed in course design processes at OU and STOU. Attitudes of media producers and students in both universities towards the design of broadcast materials as integral parts of multi-media packages are examined.

The study describes how different approaches to multi-media integration affect ways in which students learn, and develop their skills in learning. It goes on to suggest that higher-order learning skills cannot be taught and learned as part of a regular curriculum, but they can be developed through the use of well-designed integrated multi-media packages. Two selected courses from OU and STOU are analyzed in this respect.

CHAPTER 1

INTRODUCTION

In developing countries, opportunities for education are generally limited by economic factors, a lack of resources, existing systems and social development factors. To address these problems, the Thai government has broadened opportunities for higher education by increasing the number of conventional universities, private colleges, and institutions throughout the country. Sukothai Thammathirat Open University (STOU) was also introduced in 1978 as the first institution in Thailand employing a full range of integrated multi-media teaching materials through the system of distance education. Its purpose is to reach large numbers of people who wish to develop themselves in terms of their level of education and in areas of personal interest. STOU has been considered successful in fulfilling educational needs for persons of all ages and occupations regardless of academic, financial, or geographical problems. The large numbers of students graduating from STOU are an indication of its success. Nevertheless, this study argues that success in educational development does not depend only on the capability to produce a large number of graduates. Education is meant to serve each individual for his or her lifetime. One of the concepts which has most influenced the development of distance education is the concept of life-long education. Hence, distance education should foster the individual and provide him or her with the tools to reach this goal. Otherwise, distance education would be merely another form of traditional learning.

1. Significance of the study

The study is derived from the belief that an integrated multi-media system is a crucial feature of distance education. The structure and characteristics of the system represent an institution's pedagogical aims and its idea of the learning process itself. In this study, two integrated multi-media systems are observed : that of STOU, and the integrated multi-media system of the Open University of the United Kingdom (OU). There are two reasons for selecting the OU as a case study. After its establishment, the OU was the model for various open universities employing the system of distance education. As Lewis points out : "The OU has brought respectability to open learning" (Lewis & Spencer, 1985 : 13). Secondly, STOU was one of those open universities that observed the development and achievements of the OU. Even though STOU did not replicate the entire system of the OU, it learnt from and adopted some practices of the OU. STOU claims to employ the full range of a modern integrated multi-media system as used by the OU. It is therefore useful to look at the integrated multi-media systems of both STOU and the OU to examine their strengths and weaknesses.

2. Scope and purpose of the study

The study primarily focuses on the integrated multi-media system of both Universities : OU and STOU. More specifically, it observes how radio programmes, television programmes, and printed material are integrated into a whole course. Following on from that, the role of integration in multi-media distance learning

courses produced by the OU and STOU is examined. It should be noted here that only radio and television are observed in this study because currently they are the two major electronic media that play an important part both in OU and STOU. Additionally, it is worth looking at the use of broadcasts in the OU because as noted by Holmberg : "Probably the most systematic use of radio and television in distance education is that by the British Open University" (Holmberg, 1989 : 69).

The study contains nine chapters. Each chapter stands on its own but is supported by and connected to the others. The study starts by giving the general background of education in Thailand. This includes a brief history of education in Thailand, the value Thai people put on education, and the establishment of STOU (chapter 2). Fundamental concepts and theories of distance education are reviewed in chapter 3. Following this, in chapter 4, the course production processes in the OU and STOU are observed.

In chapter 5 and 6, more details about the integrated multi-media systems in the OU and STOU are presented. The data for these two chapters are drawn from questionnaire surveys of BBC/OU and STOU producers, and OU and STOU students. Chapters 4, 5, and 6 provide information concerning the integrated multi-media systems in the OU and STOU drawn from three different sources : 1) from the literature (chapter 4), 2) from comments by producers or media designers (chapter 5), 3) from views expressed by students

(chapter 6). A discussion of topics raised is then given in chapter 7.

To carry the discussion further, two selected courses from the OU and STOU are analyzed in chapter 8, in terms of how media are integrated in each of the courses. The conclusions drawn from this are supported by the data gathered in chapters 4 and 5. All the evidence obtained from persons involved in the systems, students, and textual analysis are used to form a number of conclusions set out in chapter 9.

3. Methodological approaches

A combination of qualitative and quantitative methods was used in this study. The word "qualitative" implies an emphasis on processes and meanings that are not rigorously examined, or measured, in terms of quantity, amount, intensity, or frequency (Denzin and Lincoln, 1994). Qualitative researches stress how social experience is created and given meaning (Ibid). Merriam mentioned six assumptions of qualitative researchers (Merriam, 1988). They are as follows :

1. Qualitative researchers are concerned primarily with process, rather than outcomes or products.
2. Qualitative researchers are interested in meaning-how people make sense of their lives, experiences, and their structures of the world.
3. The qualitative researcher is the primary instrument for data collection and analysis.
4. Qualitative research involves fieldwork. The researcher physically goes to the people, setting, site, or institution to observe or record behaviour in its natural setting.
5. Qualitative research is descriptive in that the researcher is interested in process, meaning, and understanding gained through words or pictures.

6. The process of qualitative research is inductive in that the researcher builds abstractions, concepts, hypotheses, and theories from detail.

(Merriam, 1988 : 19-20)

Quantitative method, on the other hand, emphasize the measurement and analysis of causal relationships between variables. It has been described as "a numeric description of some fraction of the population, the sample through the data collection process of asking questions of people" (Creswell, 1994 : 117).

In relation to quantitative methods, there were two questionnaire surveys aimed at two different sample groups. The first questionnaire survey was directed at BBC/OU and STOU producers. The second questionnaire survey was conducted after the completion of the first survey. It was designed to elicit data that would complement the data gathered from the first survey and was aimed at students from both universities. The research objectives of the surveys were 1) to examine attitudes of BBC/OU, and STOU producers towards integrated multi-media systems of OU and STOU 2) to examine attitudes of OU and STOU students towards their broadcast material.

A variety of question structures was used in both questionnaire surveys. They comprised closed and open-ended questions, rated scale questions, and rank order questions. The questions were designed to be unbiased in their phrasing. Given cultural differences in Thai and English, survey questions were modified to reflect whichever culturally appropriate phrasing was necessary.

The advantage of questionnaires is to obtain information about people's attitudes, thoughts and feelings in a time-efficient way (Bennett et al, 1996). However, there has been an ongoing debate about the use of open / closed questions in the questionnaire survey (Foddy, 1995). Proponents of the use of open questions argue that they allow respondents to say what is really on their minds without being influenced by suggestions from the researcher, whereas closed questions lock respondents into arbitrarily limited alternatives. They see closed questions as being decontextualised and providing incomplete response options to the respondents. On the other hand, the researchers who prefer closed questions argue that open questions tend to produce material that is variable, of low reliability and difficult to code (Ibid : 127). Since both formats (open / closed questions) have advantages and disadvantages, methodologist tended to settle on the compromise position that a mix of open and closed questions is best (Cicourel, 1982; Converse, 1984; Converse and Presser, 1986).

Apart from questionnaire surveys, interviews were also conducted. The interviews were directed at media producers, and policy makers and administrators or to their authorized representatives. They involved questions regarding integrated multi-media systems in OU and STOU. The interviewees were purposely selected with regard given to their responsibilities in the media system. The interviews with key informants in STOU were conducted while the author was in Thailand between September 1993 - August 1994. Most of the interviews with OU key informants were completed when

the author attended the OU workshop "Distance Learning : Designing Systems And Materials" between September 12th - October 7th 1994 in Milton Keynes. It should be noted, however, that BBC/OU producers and OU key informants were less available than those of STOU.

Interviewing has a wide variety of forms and a multiplicity of uses. The most common type of interviewing is individual, face-to-face conversation, group interviewing, mailed or self-administered questionnaires, and telephone surveys (Fontana and Frey, 361). The interviews were conducted in the form of a formal conversation. They were semi-structured in nature. Being guided by a list of items of the major areas of inquiry rather than standardized questions, the semi-structured interviews allowed flexibility in questioning. Although the content of the questions was predetermined, the wording was not. Whenever it appeared desirable, question wording could be changed to meet the understanding of the interviewees in order to allow unanticipated responses and to get deeper information for the study (Bennett et al, 1996). Furthermore, the interviewees were able to present ideas and to elaborate on other issues that they felt were important beyond those being raised by the interviewer. Indeed, many unexpected issues that proved to be crucial for this study were pointed out during the interviews.

Finally, a textual analysis of two selected courses from OU and STOU provided additional data to support the findings from the

two questionnaire surveys. The courses were then analyzed with regard to the issue of media integration only.

4. Limitation of the study

The research does have its limitation. For example, as mentioned earlier, some key informants especially from the OU were not available for the interviews. Due to distance and time constraints, it was not possible to get access to all desired interviewees. Despite the limitation, it is not felt that these are sufficient enough to compromise the integrity of the study.

In terms of the second questionnaire survey, the number of students for the survey had to be limited to 200 (100 from STOU, and 100 from the OU). First of all, they were distance learners who were scattered throughout Thailand and the United Kingdom. The author decided to distribute the questionnaires to them when they were gathered together. In the case of OU students, it was when they attended the Summer School in the University of Stirling where the author was studying. Another 100 questionnaires in Thai were sent to Thailand during the period when a large number of students were called to attend a workshop at the STOU headquarters. The returned rate of questionnaires from OU and STOU students was 100%. It should be noted also that the study was conducted from February 1992 to February 1996. Any change after this is beyond the scope of the study.

CHAPTER 2

THE EDUCATIONAL CONTEXT FOR DISTANCE EDUCATION IN THAILAND

1. Brief history of Thai education

Education in Thailand was first offered in the Buddhist monasteries, the Royal Court and in certain households about 700 years ago. In the past, Thai families encouraged only boys to study. Girls, on the other hand had almost no opportunities in education. The boys had to memorize some basic Pali and have some notion of the fundamental knowledge such as arithmetic, reading, writing, and skills that would prepare them for employment in the civil service.

Although Thailand has never been colonized, it was influenced by Western-style education. The first form of Western-style education was introduced by Portuguese missionaries in 1850. However, modern education did not really begin in Thailand until 1871. The first primary school was established in order to train children of royalty and government officials for offices under the royal administration.

At the beginning of the nineteenth century, education in monasteries was considered of little practical use. More liberal views on education were brought to Asia, following the growth of the British Empire and British trade. The resultant system of education was believed to be of greater benefit. It was later to spread throughout the Asian countries.

In the reign of King Washirawut; Rama VI (1919- 1925), Thailand's educational activities were increasingly expanded. Thailand's first university, Chulalongkorn University, was founded in 1917. Its main objective was to provide skilled personnel for government service. In 1921, a law was established making education for children between seven and 14 years of age compulsory. According to the royal decree, girls were given equal rights to boys in education. During that time, many government schools were established both in the capital and the provinces. However, the policy of education during this period was only to train future civil servants. Higher education in the country also developed along similar lines to those of primary education.

With the spread of democracy and the coming of the industrial revolution, there was a need for greater numbers of educated people. Along with the change in the government system from absolute monarchy to constitutional monarchy in 1932, Thailand called for qualified officers to serve as leaders in its new political system. One response to this was the establishment of Thammasat University in 1933. The university was known as the University of Moral and Political Science. It provided the training necessary to produce the political leaders and civil servants needed by the country. In 1942, three more universities specializing in agriculture, fine arts, and medicine respectively were created. The main objective of these universities was, again, to provide government personnel trained to serve society's needs.

As demand for higher education grew, both government and private educational institutions were set up in large numbers. Despite this increase, the number of seats available in higher education did not meet the rising demand. Consequently, the "open admission" Ramkamhaeng University was established in 1972. By 1977, its student enrolment was close to 100,000 (Bavornsiri, 1985). A year later, Sukothai Thammathirat was established to ease the pressure of increased demand for places in higher education. It is the first open university in Thailand and Southeast Asia that uses a distance education system to broaden the range of educational opportunities.

2. Some problems of education in Thailand

Education provided by the state as a part of government policy is relatively new in Thailand, dating only from the last part of the nineteenth century, since before that education was offered in Buddhist temples (Ketudat et al, 1978: 1). Since then, education has played an increasingly important role in the Thai government strategy for economic development. Their attempt at educational improvement can be shown by the increasing share of the national budget devoted to education. During the 1960s, the Government introduced major educational reforms at all levels of the system and in almost every subsector (Ibid).

Even though the improvement of education in Thailand is considered crucial, the level of improvement is not yet satisfactory. The educational system has not been able to provide educational opportunities to as wide a range of people

as was expected by the government. Statistics from the Department of General Education show that in 1985, 80 % of rural parents did not know why they should send their children to school (Preinvestment Study Team, 1985). Without understanding the true meaning of education, some parents particularly in rural areas, simply send their children to school because they were obliged by law which states that children must have at least four years of compulsory primary education. Most of them prefer their children to help them with household work, rather than to go to school. This is reflected in the fact that schools in rural areas are closed during rice harvesting season.

Nevertheless, education is highly regarded by the Thai people. It is believed that education is a means of preparation for an occupation. This belief probably had its origins in the traditional system where school was only a privileged place for children of royalty and government officials. The function of education in Thailand was primarily to provide the government with bureaucrats. This belief is still maintained in Thai society. Most Thais who can afford to, will make great efforts to give the best education possible to their children. This causes a great demand for access to higher education. The problem of access demand in higher education will be discussed after the Thai attitude towards education is further discussed as a major cause of such problem.

Generally speaking, education in Thailand is believed to take place only in the classroom. The method of teaching in the Thai

educational system is repetition, copying, and rote learning. Students are taught to believe that "teacher" is someone who should not be criticized or disagreed with. An answer which the teacher provides must be the correct answer. Teaching has high social status in Thai society, particularly in the past when children were taught by a monk who is regarded with the highest respect in Thai society.

Due to the teacher-centred approach, there is no "teacher-pupil" dialogue in the Thai educational system. Thai students are not encouraged to express themselves. The system is a "teacher-centred approach", rather than a "learner-centred approach". The latter was only encouraged in Thai society in 1970 when the concept of "Khit-Pen", or self-directed learning was initially introduced by Thai adult educators. The concept of "Khit-Pen" and its implementation is examined in detail in chapter 3.

The above paragraph implies that schooling for Thai people is not seen as an opportunity for self-development. As a result of the teacher-centred approach, learning is viewed as the receiving of a certificate which is considered as a passport to a higher status.

Each year, a large number of students from all regions come to Bangkok to attend the well-known state universities. This is because most of the best-known universities are located there. Thousands of school leavers migrate from rural areas to seek their educational fortune in the capital. For the ones who

succeed in attending the state university of their choice, statistics show that few of the students from rural areas return to their home after graduating (Ibid). This may be due, in part, to the curriculum not being relevant to the needs in those rural areas.

As mentioned before, the effort of the government to increase the number of educational institutions has failed to meet the needs of society. Each year, the demand for higher education has dramatically increased. In the past few decades, the government has tried to expand university-level institutions. In 1975, there were 13 government universities and institutions, and 10 private colleges (Ketudat et al, 1978). The opportunities are even greater now. Even though there are many university-level institutions for students to choose from, students from both urban and rural areas prefer to attend state universities. There is a strong belief that they give better opportunities for future careers.

In order to address expanding the numbers of students who wish to enter universities in Bangkok, the collective entrance examination system was introduced. This examination system is administered by the National Educational Council. It is used presently in all of the state universities and some of the private ones. In order to attend the selected institution, each student has to pass the examination. The entrance examination allows applicants to select fields of study in one to four universities of their choice. They are placed according to their

examination performance. By 1975, the percentage of successful entrants was only 27 % of those who applied. In this 27 % of successful applicants, applicants from regions other than Bangkok had a significantly lower success rate than those entrants from Bangkok (Bovornsiri, 1985). This can be explained by the fact that secondary schools in Bangkok are better at preparing students for the entrance examination, due to better qualified academic staff and educational resources. Therefore schools in Bangkok give students a greater opportunity to move up the educational ladder. The school systems of Bangkok encourage students and this again causes problems in that school leavers migrate from rural areas to Bangkok in order to prepare themselves for the entrance examination.

For students from poor families, especially those in rural areas, there is almost no opportunity available to attend a state university. Meeting the cost of living in Bangkok is the major problem for some, especially given that grants or loans are not provided. In private colleges, personal expenses are even higher since a student is charged the full cost of instruction.

Like other countries worldwide, job opportunities in Thailand are competed for by college and university graduates. There is also an imbalance between demands for educational opportunities and jobs available. The number of graduates is not equivalent to society's needs. In 1973, only 56 % of graduates from state universities and 34 % from private colleges indicated that they were directly using what they had learned (Ketudat et al, 1978

: 64). This problem has been recognized by the government. The collective entrance examination was reviewed and re-analyzed in 1968. It was pointed out that students' chances of success could not be predicted wholly on the basis of test results. The team working on this project strongly recommended that "...the best qualified student in each area should be admitted to faculties in which they will succeed and make the greatest contribution to the country" (Kraft, 1968).

There is a degree of incompatibility between the educational goals that students aspire to and the roles that Thai society requires of them. On the one hand, there is a great demand for higher education opportunities. On the other, there is a surplus of graduates. Thailand has been facing the problem that after placing more and more resources in higher education, the number of graduates that cannot find jobs is on the increase. However, it is likely that, in order to keep up with social demands, the government cannot reduce university enrolment. Hence each university has to find a way to strike a balance between social demand and manpower requirement.

To put more emphasis on improving the atmosphere of learning and teaching, educational planning in Thailand has become an integral part of the National Economic and Social Development since 1962. The government has adopted a combination of social demand and manpower requirement approaches to educational planning. Three governmental organizations are responsible for the plan. They are (1) the National Economic and Social Development Commission,

(2) the National Education Commission, and (3) the Budget Bureau. Educational planning is covered by the National Development Plan which is under the responsibility of overall socio-economic development planning authorities. The authorities may give guidelines and directions to educational planners. After that, the government agencies which are responsible for the administration and control of the education system formulate the operational educational planning. The government agencies involved in operational educational planning are as follows : (1) the Ministry of Education, (2) the Municipalities responsible for education in their respective areas, (3) the Local Administration Department and, (4) the State Universities Bureau.

The operational educational plans are prepared for all the provinces and educational regions of the country. These plans are intended to be in accordance with the economic, social and educational needs of each area. The plans are submitted to the central units for study and integration into the National Development Plan.

Even though educational planning in Thailand has been integrated into the National Development Plan since 1962, it was not until 1967 that educational planning became an important part of the process of economic and social development planning.

Since 1966, funds for education in Thailand have been oriented towards fostering manpower development, improving access to education; especially in rural areas, supporting Government

efforts in curriculum reform, raising the quality of education provided and promoting more effective education administration.

The first three Plans of Educational Development (1962-1976) concentrated attention on developing the secondary education sector and rural access to schooling. The fourth plan (1977-1981) marked the transition to improving the administrative system, reforming the curriculum, and perhaps most importantly encouraging equality of educational opportunity across the country.

It is clear from the educational plans that the government has tried to improve the distribution of development benefits between regions, income classes and urban and rural areas. Public expenditure was to be increased to extend education to rural areas where the need was greatest and to reorganize to meet the needs of the majority of the population.

The need to achieve equality of opportunity in education together with the pressure of increased demand for places in higher education institutions led to the establishment of Ramkhamhaeng University, an open admission university, in 1971. Seven years later, Sukothai Thammathirat Open University (STOU) was established to give more opportunities in higher education to Thai people. It should be noted here, however, that Ramkhamhaeng University might relieve the pressure of shortage places in higher education, but it cannot solve two other major problems which are an overabundance of graduates and the migration of

students from rural areas to Bangkok. This is because Ramkhamhaeng University is located in Bangkok and it requires students to come to the classroom to study just as in other conventional universities. Due to its open admission, the number of students who migrate from rural areas to Bangkok is even greater.

With a different philosophy, STOU appears to be able to solve the problems of student migration and an excess of graduates in a more practical way. It has provided equality of educational opportunities for people of all ages, throughout the country. As students of STOU are based at home, they do not have the problem of meeting the high cost of living associated with study in Bangkok. Furthermore, STOU is less likely to contribute to the number of unemployed graduates because most students in STOU are working adults who wish to continue studying but do not want to separate work from study. In this sense, STOU also provides opportunities to working adults to improve their knowledge, professional ranking and competence for the good of society. STOU will be observed in detail later after the system of non-formal education, institutions employing distance education in Thailand and Thai educational broadcasting have been examined.

3. Non-formal education in Thailand

Non-formal education in Thailand started in 1940. In that year, the national census revealed that 68.8 % of the population over ten years of age were illiterate. The government has made a strenuous attempt to rapidly expand non-formal education. Within

a period of three years (1940-1943), over 1.4 million adults graduated from the non-formal education programme (Ministry of Education-Thailand, 1976 : 121).

At present the Department of Non-Formal Education, under the supervision of the Ministry of Education, is directly responsible for non-formal education throughout the country. The department has operated the following programmes : village newspaper reading centres, public libraries, interest group programmes, mobile vocational training programmes and functional literacy programmes.

In 1954, the Thai UNESCO Fundamental Education Centre (TUFEC) introduced the concept of adult education. The adult education programme concentrated its activities on the rural population. A variety of programmes were offered, including adult literacy, occupational skills, agricultural extension, farmer training and community programmes. Even though adult education is a vital factor in rural development, it can be viewed also as a movement towards "lifelong education". At present, the Department of Community Development is responsible for fundamental education units and the rural development training.

4. Distance education in Thailand

Distance education was initially introduced in Thailand as a response to the increasing demand for the education and training of teachers. Some teachers' colleges in rural areas employ distance education methods for their teaching and learning

system. The instruction method of most of these colleges is by means of correspondence courses. Some are accompanied by radio programmes, cassette tapes and face-to-face tutorials. Below is the description of educational institutions employing distance education methods throughout Thailand.

Sakon Nakorn Teacher's College, a college in the Northeastern part of Thailand, for example, provides educational radio programmes for the general population in its province. The programmes are produced by many institutions to support the principle of lifelong education. The programmes are broadcast over the local radio on Saturdays and Sundays.

The Department of Non-Formal Education is another institution that makes use of certain distance education techniques. The Department was established in 1979. It is aimed at adults who have no opportunity for formal schooling. The programmes offered include :

- (a) Programmes for equipping learners with basic tools
 - (i) Literacy Campaign Project
 - (ii) Functional Literacy Programmes
 - classroom type -Buddhist Monk
 - peripatetic -hill tribes
 - college student type -military recruits
- (b) Continuing Education Programmes
- (iii) Functional Education Programmes
- (iv) Radio-Correspondence Programmes
- (v) Short-Term Training Programmes for Villagers

Apart from that, the Department has the responsibility for providing news and information to the general public. The services it provides are shown in the following page :

- village reading centres
- mobile exhibition units
- public and mobile libraries
- a science museum
- production of reading materials
- a natural history museum
- mobile audiovisual units
- planetarium
- radio-correspondence programmes
- educational television programmes

The Centre for Educational Technology has played an important role in non-formal distance education. Through the National Radio Network for Education and Development, programmes for adults and non-formal education programmes are broadcast daily for 3-4 hours.

5. Educational broadcasting in Thailand

The broadcast media in Thailand have operated since 1930. Initially, they were generally used for government propaganda. Later on, commercial broadcasting has played an important role. Little use has been made of the media for educational purposes. The National Education Committee conducted a study on the role of broadcasting in people's education. The findings could be summarized as follows : (1) radio programmes consisted of 50 % entertainment, 24 % news and information, 19 % education and culture, and 7 % advertising (2) television programmes consisted of 63 % entertainment, 17 % news and information, 14 % education and culture, and 6 % advertising (Chaya-Ngam, 1987 : 310).

It was not until 1954 that Thailand became active in the field of educational radio broadcasting. Only in 1963, did television begin to be used to a limited extent for educational purposes.

It can be said that, initially, educational broadcasting in Thailand was developed for the purpose of non-formal education. The School Broadcasting Division, created in 1963 under the supervision of the Ministry of Education, was responsible for school broadcasting programmes.

In the early 1970s, a decision was made to improve the quality of education and to reform the curriculum. The government became more concerned about how the proposed reforms could be implemented in 30,000 schools, most of which were in remote areas. Since then, the educational media system has been expanded into national coverage. The intention has been to provide educational opportunities for those who were no longer in the school system. Later, it was developed for the need of pupils, teachers, and the general public as well.

Radio has played an important role in education throughout Thailand. Due to its low costs, almost all people living in remote areas can easily get access to radio. Therefore, radio has an advantage over other mass media in expanding educational opportunities. Almost all educational radio programmes are provided by the Ministry of Education. They were all radio programmes in the areas of : elementary level social studies, elementary level music and singing, and elementary level English.

Apart from these, there has been a wide range of radio programmes for adults. The programmes are offered by the Public Relations

Department, and University stations. Most programmes are broadcast between 6 and 10 at night for the convenience of the audiences. The programmes provided by colleges and universities are more likely to be in the areas of agriculture, law, politics and languages.

As previously mentioned, the use of educational television in Thailand has been limited. Most educational television programmes are produced by the two open universities in Thailand : Ramkhamhaeng University and Sukhothai Thammathirat Open University. Prior to that, educational television was provided by two agencies : the Ministry of Education (through its Centre for Educational Technology) and the Bangkok Metropolitan Instructional Television Section.

Both educational radio and television programmes for formal and non-formal education are operated by the Centre for Educational Technology. The School Broadcast Section is responsible for producing school radio programmes for both formal and non-formal education. The General Educational Broadcasting Section organizes educational radio programmes for non-formal education in Bangkok and other provinces. The General Education Broadcasting Section also offers training workshops for announcers and radio scriptwriter for child and adult programmes. The Educational Television Section has similar responsibilities. It is generally responsible for promoting the studies of children and young people.

Thailand would appear to possess the resources necessary to promote new forms of distance learning employing modern multi-media systems. As seen, Thailand has had experience of using educational broadcasting especially in the area of non-formal education for some time. The experiences gathered in the field of educational broadcasting and adult education were to be particularly valuable in the establishment of the new institution : Sukothai Thammathirat Open University.

6. Sukhothai Thammathirat Open University

Sukothai Thammathirat Open University (referred to as STOU hereafter) is by far the largest university in Thailand that employs a distance education system. It was designated by UNESCO as the lead institution for distance education in Asia and the Pacific. Among universities in South-East Asia, STOU is claimed to be the first open university that uses a full range of integrated multi-media teaching materials. This makes it different from other Thai institutions employing distance education methods.

At the beginning of 1978, the plan for the establishment of STOU was officially proposed to the government. Prior to that, there was a two-year period during which the Planning Committee had been preparing the proposal.

The Planning Committee was appointed by the Office of University Affairs in 1976. Professor Dr Wichit Srisa-an, a founder of STOU was the Chairman of the project. The Committee had

responsibility for setting up the administrative and academic structure of STOU. It also had to collect and analyze all the relevant information and data for the decision-making authorities concerned. It was necessary to dispel any doubts and convince the authorities of the desirability of setting up the first open university with a distance learning system in Thailand.

Accordingly, during the project planning, several measures were taken to ensure a greater degree of success. They were as follows:

- a survey of the educational needs of the general public
- tests undertaken with the academics of various universities to verify the efficiency of the distance teaching techniques
- a background study on existing distance teaching universities in various countries
- a survey of existing infrastructures compatible with the system to be implemented.

Several studies were conducted during that time to establish the needs of the general public and opinions of academics in various universities. It was thought that the development and achievements of other distance teaching universities, such as the Open University of the United Kingdom, could be examined with the aim of reproducing this in Thailand. Eventually, the Open University of the United Kingdom was seriously observed by the Planning Committee as the potential model of STOU.

Nevertheless, the Planning Committee came to the conclusion that there was no single model of distance education that could be transported across cultural and linguistic boundaries. No other system could be replicated in its entirety. Instead, a separate distinctive system had to be devised to suit the socio-economic environment of the country.

With a population of about 60 million and a land area of half a million square kilometres, Thailand is a fairly compact country. A majority of its population live outside the capital. This makes it difficult for people in remote areas to have access to higher education facilities which are concentrated in the urban areas. A distance education system was proposed in order to democratize opportunities for higher education. It is cost-effective for the Government and affordable for the students who live throughout the country.

The selection of the medium or media used in a distance education system is crucial. It has been shown that in Thailand, the postal service was more readily accessible and efficient than mass communications. Literacy in Thailand was estimated at about 86 % at the time when STOU was planned (Srian-an, 1986). Consequently, the Planning Committee, after careful consideration, proposed to use printed materials as the core medium for the STOU teaching and learning system. Radio and television are two of the most important supportive media.

Although Thailand is not yet advanced in technology, mass communications reach the great majority of the population. Radio coverage extends to most of the country. Ownership of personal radios is widespread. As an educational medium, radio is therefore considered significant.

Television coverage in Thailand is handled by relay stations and regional transmitters. Thanks to the culturally and linguistically homogeneous nature of the country, television can be more easily applied to educational purposes than in some other countries.

STOU characteristics

STOU has been designated as an open university. It holds to the principle of life-long education which "...aims at improving the quality of life of the general public, seeks to increase the educational qualifications of working people, and strives to expand educational opportunities for secondary-school graduates in response to the needs of the individual and society.." (STOU Founding Act, 1980).

In order to "expand educational opportunities", an entrance examination is not required for admission to STOU. For the degree programmes, there is no entry qualification required if the applicants : 1) have completed 12 years of schooling or their equivalent or, 2) have completed 10 years of schooling and had five years of work experience after receiving their certificates and are over 20 of age as of the 1st of December of the enrolment

year or, 3) are holders of diplomas or degrees at any level from institutions of higher education approved by the STOU Academic Senate (Srisa-an, 1986).

Although STOU was proposed as a new type of educational system, it was very much welcomed. The total of its first enrolment on December 1, 1980 was 82,000. This number was seven times higher than the original estimate. Presently, there are 10 major areas of study offered by STOU. They are : the School of Liberal Arts, the School of Educational Studies, the School of Management Sciences, the School of Health Sciences, the School of Law, the School of Economics, the School of Home Economics, the School of Agriculture Extension and Cooperatives, the School of Political Science, and the School of Communication Arts.

Unlike other conventional universities in Thailand, STOU is more popular with working adults who live outside the capital than with high school graduates. Approximately 90 % of its students are working adults. Only five percent of the total enrolment is from the capital.

As a state University, STOU, under the supervision of the Ministry of University Affairs, has a great deal of autonomy and the right to award its own degrees. Students can earn a bachelor's degree in two to 12 years with a requirement of 132-144 credits or 22-24 courses. Each course contains six credits. A student is not allowed to take more than 18 credits or 3 courses per semester. Courses are designed to provide an

integrated study of interrelated subjects. The content of each course encourages students to concentrate in special areas rather than spreading their interests over a wide range of subjects.

For non-degree programmes, STOU offers courses for the general public designed to promote personal development and professional competence. The purpose of a continuing educational programme is to help working adults develop their skills and gain relevant knowledge for their careers. Moreover, the university offers regular training courses, either short or long ones, through its distance teaching and learning system.

STOU instructional system

a) Main media

The main media for courses offered by STOU are printed materials. As mentioned before, a high literacy rate in Thailand makes printed materials much more easily accessible to a large number of people. Another advantage of printed materials is that they can be provided without heavy investment.

Each year, there are approximately 3,500,000 printed materials published for the academic purposes of STOU. These include textbooks, workbooks, examination papers, official forms, handbooks, curricula, and STOU newsletters. The STOU University Press is responsible for all of these.

STOU textbooks are the major item among various kinds of printed materials. Textbooks are designed in a special format in order

to help the students to study as effectively as possible on their own. One textbook is divided into 15 units. Each unit requires approximately 12 hours of study weekly. The students are given guidance at the beginning of each unit about the topic, concepts, objectives, activities and self-evaluation methods.

The actual content is broken down into sections. There are activities provided in each section in order for the students to check their understanding in the given workbook. There is also a pre-test and a post-test available with answer keys to give feedback to the students.

For some courses with difficult content, printed materials are accompanied by cassette tapes. The tape is considered as a brief textbook. It is presented in the form of an outline and summary of the important points from the actual content of the printed materials. Generally, the forms used in cassette tapes are lecture, discussion and conversation.

A STOU textbook, which basically consists of programmed text and accompanying workbook, is interactive in nature. The students can evaluate their own performance and receive feedback to indicate the progress of their studies. STOU textbooks are not presently used only by its students. Being considered valuable, they have been used by many conventional universities and institutions. This is one factor that has allowed STOU to be widely accepted in the academic community.

b) Support media : radio and television broadcasts

Radio and television programmes constitute the two major support media of the STOU teaching system. The programmes are produced at its Educational Broadcasting Production Centre. STOU produces a large number of educational programmes to serve its students as well as the general public. Annually, an average of 7,800 radio programmes and 1,100 television programmes are produced.

For each course, a total of 10 radio programmes are offered. Each radio programme lasts 20 minutes. They are broadcast daily. Like the radio programmes, STOU television programmes are also broadcast daily. Three television programmes are offered per course. Each programme lasts 30 minutes.

After being broadcast, the master programmes of radio and television are kept at the Educational Broadcasting Production Centre of STOU. Every programme is copied and sent to the STOU library at its headquarters and 10 other centres in the larger provinces of the country. These are for the use of the students and the general public. The programmes are updated every three years.

c) Tutorials

Tutorials are organised for STOU students. They are to provide a greater degree of face-to-face interaction between the students and instructors. The tutorial sessions are held in regional, local and special study centres throughout the country on Saturdays and Sundays. It is optional rather than compulsory for

the students to attend. Each course offers about 10 hours per semester of face-to-face instruction. In certain courses, the tutorial content is supplemented by videotape or film.

Academic tutors for STOU tutorials are usually faculty members from the University. However, most of the time qualified academic staff from higher education institutions in the capital as well as in the regions are invited to serve as STOU tutors for its tutorial sessions.

As a new institution employing new methods in teaching and learning, STOU needed some time to familiarize Thai society with its philosophy. First of all, its requirements are different from those of conventional universities. Personnel must be well-trained and re-oriented from the traditional educational form to which they have been accustomed to the new system. Existing resources and communications facilities have to be used in the most efficient manner. STOU has been successful in maximizing existing resources both in personnel and organizational forms. The good co-ordination and co-operation between the University and the Communications Authority of Thailand has led to the success of its delivery system. In terms of its academic standards, approximately 3,000 specialists from various institutions and agencies have been invited to act as course producers and tutors for the University. Conversely, various agencies have co-operated with STOU in setting up special programmes for the improvement of personnel. Thanks to the cooperation of regional institutions throughout the country,

tutorials can be easily arranged and library services can be widely provided to all students. Apart from that, STOU has cooperated with various organizations and institutions all over the world to exchange information and develop itself.

It could be said here that STOU can be considered to have been successful in getting itself accepted by the society. It can relieve the pressure of increasing demand in higher education as well as in-service professional training. Its academic standards have been well recognized among the Thai academic community. STOU textbooks are well known and are used by many conventional institutions. This has helped the University to enhance its reputation in the eyes of the public. The large number of students from all over the country who enrol in STOU each year is a good indicator of success. In addition, another factor that has greatly contributed to an increase in the public's recognition of STOU is that it provides equal opportunity in education to everybody, without causing the problem of over-production of graduates.

However, it appears that Thai society accepts only its method, but not its philosophy which is meant to promote 'lifelong education' or reinforce the concept of self-direction. As already indicated, the attitudes of Thai people towards traditional education have been around for a very long time. In the same manner, it will take quite a long time to change. This is because skills appropriate for self-directedness in learning have never been seriously emphasized at any level of instruction

in Thai society. Having been accustomed to traditional learning, Thais need some time to appreciate the underlying philosophy of STOU.

STOU has its own characteristics even though its original model is the Open University of the United Kingdom (OU). It is worth at this point to observe the similarities and differences between two of them. Since the main purpose of this study is to focus on the integrated media production process, the course design process of OU and STOU will be examined in chapter 4. The following chapter focuses on a literature review concerning distance education and distance learning material. The main purpose of the review is to clarify the concept and implementation of distance education to see whether it has been appropriately applied in the context of Thai education.

CHAPTER 3

THE DEVELOPMENT OF DISTANCE EDUCATION : LITERATURE REVIEW

1. From correspondence to distance education

Teaching and learning by correspondence is the origin of distance education. Correspondence education has been practised for several generations. It is usually considered to be part of adult education. The most usual form of correspondence system is autonomous or individual study. The consumers are likely to be adult learners who are studying on their own.

The term "correspondence education" is described in the following terms :

"..correspondence education is a form of teaching that combines an organized course of self-study with a two-way communication over a distance between student and teacher.."

(Edstrom, 1970 : 119)

Teaching by correspondence is very seldom discussed from the point of view of its own methodology, characteristics and possibilities (Ibid, 111). This is mostly because each correspondence education institution has adapted its own policy, methods and practices to local conditions and requirements. Correspondence instruction takes different forms in different parts of the world because educational systems and needs are themselves specific to that region.

Nevertheless, there are several distinguishable characteristics in correspondence education. Basically, it is taken to denote teaching using written materials. "Teaching by mail", which is

a common synonym for correspondence education, refers to the fact that the teaching and learning system has relied on postal communications. The texts used in correspondence education are so-called self-instructional texts.

There are two constituent elements of correspondence education, namely : the teaching exposition and the non-contiguous communication, both of which are dependent on a supporting organization such as school or university. When media other than those involving print grew in importance in education, the concept of correspondence education was broadened and diversified. The explosion of technology in education, particularly involving broadcasting and other types of inexpensive teaching and learning aids, affected correspondence education profoundly. Nevertheless, it should be noted here that whether correspondence courses are offered in written, televised or taped form, the two-way channel of communication between student and instructor remains always one of its essential elements.

The impact of technological devices resulted in a change of the name of association for correspondence education. In 1982, the UNESCO-affiliated "International Council for Correspondence Education" (ICCE) changed its name into the "International Council for Distance Education" (ICDE). There has since then been formal recognition of the term distance education. Since the early 1970s, the term distance education has gradually been adopted in the United Kingdom, North America, Australia, New

Zealand and other parts of the English-and non-English speaking world.

2. Some definitions of distance education

A variety of names has been used to describe distance education; a relatively new system of mass education. The definition of distance education itself has been given by many experts and scholars in the field. These are some of the better known attempts to define the field of the study :

"Distance education is a systematically organised form of self-study in which student counselling, the presentation of learning material and the securing and supervising of students' success is carried out by a team of teachers, each of whom has responsibilities. It is made possible at a distance by means of media which can cover long distances. The opposite of distance education is direct education or face-to-face education : a type of education that takes place with direct contact between lecturers and students."
(Dohmen, 1967 : 9)

"Distance teaching/education is a method of imparting knowledge, skills and attitudes which is rationalised by the application of division of labour and organizational principles as well as by the extensive use of technical media; especially for the purpose of reproducing high quality teaching material which makes it possible to instruct great numbers of students at the same time wherever they live. It is an industrialised form of teaching and learning."
(Peters, 1973 : 206)

"Distance teaching may be defined as the family of instructional methods in which the teaching behaviours are executed apart from the learning behaviours, including those that in a contiguous situation would be performed in the learner's presence, so that communication between the teacher and the learner must be facilitated by print, electronic, mechanical or other devices."
(Moore, 1973 : 664; 1977 : 8)

"The term distance education covers the various forms of study at all levels which are not under the continuous, immediate supervision of tutors present with their students in lecture rooms or on the same premises, but which, nevertheless, benefit from the planning, guidance and tuition of a tutorial organization."

(Holmberg, 1977 : 9)

Having introduced some representative definitions of distance education from some selected pioneers in the field, certain essential characteristics of the system can be highlighted. The main characteristic of distance education is that there is the separation of teacher and learner. The learner is removed from the teacher for much, most, or even all of the time during the teaching/learning process. Face-to-face contact between the learner and the teacher may be either non-existent, compulsory or voluntary.

Even though the learner and the teacher are physically separated from each other, two-way communication process is considered crucial. It can occur in written material, telephone, audiotape, computer or any other way. Technical media are used to unite teacher and learner and to carry the content of the course. Consequently, the face-to-face communication process is replaced by the use of one or more of the technological media.

3. Theories and research studies relating to distance education

Delling, an historian of distance education claimed that there was no systematic theory of distance education which would make it possible to classify practitioners' individual experiences (Delling, 1966 : 183). In many respects, distance education has

to be regarded as compatible with the socio-cultural foundation and the educational needs of each individual country (Wedemeyer, 1974).

Peters, a German academic researcher, believed that distance education is based on a new academic structure which is quite alien to traditional didactic education (Peters, 1965; 1971). Keegan supports Peters' idea by stating that while traditional education is based on personal communication, distance education is based on industrialised and technological communication (Keegan, 1980).

Technological communication always has the potential to change the nature of educational and instructional processes. Instructional technology is a twentieth century phenomenon. It is rooted primarily in education, communications and psychology. By the same token, Perraton says that the theory for distance education depends on existing philosophies of education, and theories of communication. It is not based on brand-new components. However, some consider that distance education has managed very well without any theory (Perraton, 1981).

The world of distance education has few of the characteristics of "teaching" as they are traditionally understood (Delling, 1966). Distance education is viewed as a multi-dimensional system of learning and communication processes. With respect to this idea, the emphasis is put much more on learner, rather than instructor or educational organization.

Distance education is a sub-set of open learning. Both 'open learning' and 'distance learning', in its broadest sense, involve giving learners some degree of choice and control. In other words, they introduce elements of flexibility into the learning process (Race, 1995).

The term 'open learning' and 'distance learning' have never been used precisely (Lewis, 1986; Rumble, 1989). According to Lewis, open learning contains the following characteristics :

- open learning is learner-centred, rather than institution-centred;
- open learning implies the use of a wide range of teaching/ learning strategies;
- open learning is about removing restrictions (barriers) to learning, particularly these barriers inherent in conventional education/ training provision.

(Lewis, 1986 : 5)

It should be noted that open learning can be delivered via the mode of conventional learning, or distance learning. Distance education is a method of education which differs from conventional education (see also page 36-7). Hodgson reveals that open learning is an educational philosophy; distance learning is an educational delivery system to meet particular needs (Hodgson, 1993). Rumble points out that even though most distance education systems tend to exhibit open features, they are open in some respects but closed in others (Rumble, 1989). This is to say that, in many cases, the delivery systems of distance education do not open up access in its fullest sense.

As Chesterton observes, the separation of teacher and learner and the production of prepackaged materials in distance education

shifts the focus of curriculum decision making away from the students and more towards the institution and its staff (Chesterton, 1985). Millard also points out that the OU appears to take decisions for administrative convenience rather than educational effectiveness (Millard, 1985). This is supported also by Lewis who describes the OU's undergraduate programme as :

'very open' in respect of who can enter, and why it is taken (the choice to enter the programme being very much with the individual); moderately open in respect of where study has to take place (the compulsory nature of summer school limited openness to some degree); both open and closed in respect of what is studied (the syllabuses of individual courses are largely fixed, but individuals can choose which courses to take from the array on offer, and to some extent which modules within a course to study) and how to study (courses are multi-media so there is some redundancy of materials, but little advice is given on what pathways to follow through a course); and very closed in respect of when (the paced nature of assessment sandwiched between fixed start and final examination dates).

(Lewis, 1986 : 8)

It should be noted here, therefore, that distance education systems may be either open or closed in relation to the criteria for 'openness'. As Rumble reveals : "many systems which describe themselves as 'open learning systems' are in fact remarkably closed when measured against the criteria for openness (Rumble, 1989 : 35).

Distance education as related to general theories of teaching and learning

Some of the theories of teaching and learning are applicable to distance education. Nevertheless, they need to be adapted to each individual system. Here, some related theories of learning

(which are the theories of how to "learn") and instructional theories (which are the theories of how to "teach" through technical media) will be discussed in order to see how they apply to distance education.

In the 1950s, there began to emerge a group of positions in educational psychology and in education which were termed instructional theories (Snelbecker, 1974 : 115).

Instructional theory is defined as an integrated set of principles which prescribe guidelines for arranging conditions to achieve specified educational objectives (Ibid, 116). Initially, it was assumed to be applicable to educational situations only when a teacher was present as well as to the exploitation of selected instructional materials.

The concept of instructional technology became more accepted in the 1960s. In the meantime, revolutionary ideas about learning seemed to have more and more influence on society. These revolutionary ideas were eventually developed into the concept of "lifelong education" which is one of the most important philosophies in distance education.

Initially, instructional technology was perceived as a means of changing the one-way authoritarian relationship between instructor and student. The idea of shifting emphasis from teachers to learners was accelerated in the 1960s. Some of the ways this shift was achieved are directly relevant to distance

education whilst other methods could be adopted for use within the fairly inflexible structure of distance education systems (Baath, 1979).

In democratic education, the key concept is always "freedom". Skinner (1968), Ausubel (1968), Bruner (1966), Rogers (1967), Gagne (1967) all developed teaching and learning theories which later became the principal concept in distance learning system. They are all agreed that true learning should not provide learners merely with facts to be memorized or procedures to be executed.

Skinner contends that learning and "getting the right answer" have become insignificant in education. He argues that a student can be over taught and as a result has no opportunity to learn "how to learn". It is important for students to learn "..to solve problems by themselves, explore the unknown, make decisions.." (Skinner, 1968). As a sequence of this thinking, programmed instruction was developed. Programmed instruction is instruction based on specially sequenced educational materials. Later on, elements of programmed instruction were adopted into distance learning materials in ways that made them understandable to learners.

Like Skinner, Rogers (1967) contends that the teacher's role has been traditionally overestimated. He advocates instead that emphasis be placed on the facilitation of learning. Rogers believes in "experimental learning" which comes about "..when

self-criticism and self-evaluation are primary, and evaluation by others is of secondary importance" (Rogers, 1967 : 43). It is assumed that every person has a natural inclination to want to learn and that they will continue their motivation to learn throughout their life, unless conditions do not allow them to do so. If students have opportunities to learn, they therefore should make decisions by themselves about what is to be learned as well as how and when to study.

Gagne (1985) specifies that motivation for achievement in a developmental sequence should rank more highly. He adds that when the learner is self-motivated, the successful mastery of more and more difficult tasks becomes a source of self-satisfaction and generates a desire for greater improvement (Gagne, 1985 : 306). When the learner attains this level of functioning, there is the motivation required to become a true "self-learner". Self-motivation, in this case, is likely to be created when the learner is provided with information that enables him to judge his own success and failure.

It has been discovered that motivational effects of a lesson depend upon motivation which has already been aroused. To be most effective, the motivation created by instructional material must build upon those that are already in the life experiences of the student. Bruner's instructional theory and discovery theory of learning claimed that students can be self-motivated in learning. He believes that learning involves transformation of knowledge and that there is acquisition of new information

which either supplants or refines the student's previous knowledge. Referring to his research on cognitive development, he contends that each person, even a child, has a characteristic way of "viewing the world and explaining it to himself" (Bruner, 1966). When students are so anxious and highly motivated in learning, certain types of feedback can probably not have any influence at all on them. Feedback given to students should be economical in terms of the amount of information that learners are expected to remember and use to solve problems. Economy, here, refers to the amount of information which learners must store in their minds and be able to process in order to solve problems.

Nevertheless, as Torrance (1966) argues, the ability of the learner should not be overestimated. It is true in a fundamental sense that learning is an individual matter which depends importantly upon individual contributions. Even so, if a learner is not given any guidance or direction, "...there is a danger of emotional disturbance, of giving up, of failing to keep going.." (Torrance, 1966 : 40).

Moreover, it has been discovered that one important principle for the learning process is to give appropriate "cues" in instructional materials. Apart from verbal or pictorial cues in texts, the study of Rothkopf & Kaplan (1972) has shown that important consequences for learning and retention result from the introduction of questions into textual passages.

Questions in texts have been playing an important role in the OU since its beginning (MacDonald-Ross, 1970). MacDonald-Ross explained and illustrated the potential role questions in texts could play in encouraging an active response during students' study (Ibid).

Rowntree also gave practical advice about the design of OU teaching material and originated the concept of a tutorial-in-print (Rowntree, 1973). The tutorial-in-print is simply a simulation of the tutorial process in print (Lockwood, 1995).

Rowntree comments that :

These tutorials-in-print simulate a dialogue between tutor and student, with frequent requests for the student to make a personal response and the author then continuing with a discussion of possible answers and where they might lead.
(Rowntree, 1974 : 119)

This is why activities .. questions, tasks, exercises .. are a vital feature of self-instructional material .. to keep learners purposefully engaged with the material .. such a tutorial is an interaction between tutor and learner. This is what we are trying to simulate in the tutorial-in-print.
(Rowntree, 1990 : 120)

It is important that the activities in texts are well designed and specified. This is for the learner to construct his or her own picture of the subject and to integrate what has just been taught with what had been learnt before the feedback was provided (Lockwood, 1995). Most scholars who construct learning theories emphasize the relationship between the knowledge being learned and the prior knowledge of learner. The basic idea is that the learner will be able to learn more if he can grasp new information and integrate it with what he has learnt before. Instructors can help learners to reach that stage by presenting

study materials in a well-organized way. It has been noted that sequencing is an important issue to be considered. When instructional materials are well sequenced, the learning experience will be presented in a way that learners can handle. Consequently, the requisite skills will have been mastered before more complex tasks are gradually attempted.

Research into distance education

The earliest published works on distance education date from the 1960s. Holmberg (1960, 1967), Wedemeyer and Childs (1961) and Erdos (1967) researched into correspondence study, before moving in the direction of distance education. Holmberg (1983) developed the essential theory of "guided didactic conversation" in distance education. Wedemeyer (1981) views distance education as non-traditional learning of a liberal, humanistic approach which has the potential to bring about profound changes in all forms of education in the United States. Erdos (1976) expands the concept of correspondence education to distance education specifically, in terms of sub-systems and characteristic functions.

There appeared also in the sixties a number of articles and occasional papers with seminal ideas. Most distance education researchers seem to concentrate their work on a few particular aspects of distance education that they are interested in. Popular research subjects include the acquisition of knowledge about identities of students, their circumstances, needs and wishes, the study process, the course materials used, the

effectiveness and economics of teaching and learning, and the general relevance of distance education to individuals and to society.

During the 1970s and 1980s, distance education research intensified. Most studies have been conducted at the planning stage of new courses in anticipation of the needs of new distance teaching organizations. There are a number of research projects which examine various aspects of distance education. Perraton (1981) views distance education from the perspective of society as a whole, and sees it as an integral part of a comprehensive social system. Unlike Perraton, Peters (1973) views distance education systems as a form of industrial production.

Since the late 1970s, distance education researchers have put more emphasis on theoretical approaches. This is probably because by that time, distance education had existed long enough to be studied as a clear theoretical doctrine in its own right. Teacher-student dialogue, the structure of distance education systems and learner autonomy are theoretically defined as important elements in distance education by Moore (1977). Baath (1979) relates concerns of distance education to well known general theories of teaching and learning.

Generally speaking, as mentioned before, theories and basic characteristics of distance education are closely related to instructional theories. Nevertheless, theories of communication, information and innovation are also made use of in the field.

Holmberg (1983) believes that an important constituent element of distance education is communication in both a real and simulated sense. Baath (1980) suggests that it is necessary to create non-contiguous communication in distance educational written materials. Apart from these, there is the possibility of using micro-computers, modems and telephone communication to facilitate interaction between students and tutors.

Distance teaching organizations world-wide also have been playing an important role in distance education research. Most of them, however, have done the research in relation to their own programmes and course evaluation. The OU is one of those organizations that has regularly published research studies of distance education materials in the areas of written presentations, radio and television, audio and video recordings, information technology and illustrative techniques.

Bates, a former head of the Audio-Visual Media Research Group in the Institute of Educational Technology at the Open University, comments on the failure of experimental research into the effectiveness of educational media. He contends that this is because statistical studies seem to have dominated research into distance education for a long time. Bates adds that most quantitative research studies lack any theoretical framework of how students learn from broadcasts.

"..For instance, questionnaire techniques can provide essential minimal information about viewing figures, student reactions, and so on. But they are not sufficient on their own to tell us why different uses of media have failed or succeeded. Students in particular are a weak source of possible improvement since they are not usually

able to judge for themselves the relevance of the programme materials, nor do they usually know enough about the subject matter to suggest appropriate alternative methods of teaching.."

(Bates, 1975b : 25)

Coldeway agrees that distance educational researchers appear to be reluctant to link their empirical and theoretical concerns to existing areas of research and scholarship (Coldeway, 1988 : 47). Baath proclaims that the few empirical findings are related to studying at a distance (Baath, 1982). In the final analysis, qualitative methodologies have been more influential on studies of distance education. A basic framework for developing research paradigms for students studying at a distance has been developed from research and evaluation carried out with conventional campus based students. In distance education, the influence of course design on how students learn is of particular interest. Qualitative methodologies seem to be able to describe more clearly students' experiences of the learning materials and design of the courses. What has been discussed about the way in which students learn, together with the conceptual framework or theories, can be used to increase the effectiveness of course materials.

Research relevant to multi-media systems in distance education

There has been little research conducted with regard to multi-media systems. The main source of information on multi-media appears to be from internal papers and research reports produced by the Open University. The OU research in its first decade generally attempted to answer the question : 'How can media

(radio and television) be used most effectively in an educational context for the maximum benefit of students' learning?'. Even though most of the studies regarding radio and television were conducted a decade ago, they are proving to be a valuable resource for STOU now. However, in recent years, research in distance education has come into a new era of telecommunications and new technologies. The subject of telecommunications and new technologies has been the major issue discussed in conferences and seminars on distance education. Nevertheless, STOU still has to depend on printed material and broadcasts as the main media in its multi-media system. Therefore, it is worth discussing research and the use of broadcast media here.

Written material is the most commonly used and one of the most important media for distance education (Holmberg, 1977). The advantage of written materials in the context of distance education has been described by Kaye and Harry as follows :

"Such materials, properly developed and presented, can prove very effective for imparting a range of basic knowledge and skill, provided that there is sufficient motivation amongst the target group for them to develop, with appropriate guidance if needed, the necessary self-study skills. Print materials have the advantage of being infinitely flexible in use; no fixed time or place is needed to study from them, they provide a permanent record which can be returned to time and again, and the student can work from them at his or her own pace".

(Kaye and Harry, 1982 : 18-9)

Other advantages of printed material are that they are cheap to produce and update, and they are easy to get access to. More importantly, print is a familiar and non-threatening medium to most users. However, one important disadvantage of printed

materials is that they are inappropriate for some learning objectives. For example, print is not as beneficial as other media when teaching topics that require animation, motion, or detailed descriptions of complex sequences. Rowntree observes that :

"The textbook is weak in that it offers little opportunity for any mental activity except remembering .. the author does the thinking."

(Rowntree, 1988 : 173)

The above statement brings us to the following argument : "Experiences through multiple media seem to add to richness in thinking" (Bates, 1983 : 11). There is an underlying belief that audio-visual media can have an active role in the transfer of knowledge when they support and reinforce one another. The point is that no one medium alone can foster all kinds of knowledge, skills and attitudes (Rowntree, 1988). Additionally, many researchers have accepted that there is no single medium that can be most appropriately used in all instructional situations (Gagne, 1977; Kaye & Harry, 1982; Schramm, 1977). Each medium has both advantages and disadvantages. To counterbalance the best potential and specific disadvantages of each, it is desirable to utilize a multi-media approach. The combination of media must be carefully designed with teaching functions and learning objectives in mind.

It should be noted here, however, that media themselves do not influence learning (Clark, 1983). He contended that :

".. Media are mere vehicles that deliver instruction but do not influence student achievement any more than the truck that delivers our groceries causes changes in our nutrition."

(Clark, 1983 : 445)

Clark has declared since then that the content presented in each medium is more important and influential in learning than the medium itself. In 1994, he proclaims again that media will never influence learning (Clark, 1994). However, it has been argued that different media have shown no difference in their effect on learning when they carry the same message (Bates, 1987; Koumi, 1994). Koumi observes that "if you try to cover identical topics or teaching functions using identical methods with all the different media, then you deliberately under-utilise every medium's full potential" (Koumi, 1994 : 43).

Clark's viewpoint about the influence of the media on learning has been disproved by many studies (Carter, 1996). It has been argued that media are not just deliverers of context and content, but are facilitators aiding in the construction of knowledge (Jonassen et al, 1994). Simpson also pointed out that the very existence of content was dependent on media because without media content "could not be represented or communicated" (Simpson, 1994 : 75). Hillman, Willis, and Gunawardena believed that the efficacy of the communication provided by technology in the learning environment would be affected by the media employed (Hillman et al, 1994). Nation also stated that "pedagogy and technology are and always have been fundamental and inseparable elements of education" (Nation, 1993 : 198), Carter stated that

"on a simplistic level educational technologies were tools, but more importantly they were composed of knowledge, values, and practices which contributed to both developments and use of those tools" (Carter, 1996 : 37).

Furthermore, it is believed that media can be used to promote skills in learning. Olson and Bruner have pointed out that development of skills in learning can be achieved through the use of the right choice of medium for instruction (Olson and Bruner, 1974). This is to say that learners can acquire basic knowledge such as facts or principles from any medium, whereas higher-order learning skills in analysis, and problem-solving can be developed better by some media than by others. Based on Olson and Bruner's hypothesis, Bates has done a large number of studies on the topic of students' use of the OU broadcasts. He concluded that a medium had two functions in the learning process which are stated below :

- 1) If the same knowledge is presented several times in several media, each medium presenting it in the way most characteristic of that medium, this provides a broader base of 'knowing' - knowing 'what' in different ways.
- 2) Each medium will be particularly appropriate for developing particular mental skills in using knowledge - knowing 'how' in particular ways.

(Bates, 1982a : 37)

Bates' conclusion about the use of media affirms that it is important to choose the medium which has characteristics that are well matched to the learning task. In other words, one must look at the role that media play in teaching. The best advantage of broadcasts appears to be that they can transmit messages in such

a powerful way that it can encourage active, analytical viewing as opposed to passive reaction.

It was said in 1970 that there were no standard criteria for media selection, or media use for education. (Ely, 1970). This complaint appears to remain today. "The choice of media in educational situations is more often based on pragmatic and other less rational reasons rather than educationally sound principles" (Thomas and Sweeney, 1994 : 94). And, since media selection models cannot always be transferred from one country to another, there is a need for a greater understanding of the function of media among persons involved in media design process. Media should be considered as the first priority in the planning process, particularly when they are to be integrated with one another and with printed material.

4. Independent learning - a fundamental concept of distance education

The theory of independent learning is one of the crucial theories in distance education. The term "independent study" was initially used by Charles A. Wedemeyer; the leading American thinker in distance teaching to describe distance education at a university level. He stated :

"Independent learning is that learning, that changed behaviour, that results from activities carried on by learners in space and time, learners whose environment is different from that of the school, learners who may be guided by teachers but who are not dependent upon them, learners who accept degrees of freedom and responsibility in initiating and carrying out the activities that lead to learning."

(Wedemeyer, 1973 : 73)

In the same year, a theory of independent learning and teaching was developed by Moore. His definition is as follows :

"Independent learning and teaching is an educational system in which the learner is autonomous, and separated from his teacher by space and time, so that communication is by print, electronic, or other non-human medium."

(Moore, 1973 : 663)

The philosophy of Carl Rogers about "freedom to learn" is a major influence on Wedemeyer and Moore. Independent study is viewed by Rogers as a democratic social ideal and a liberal educational philosophy. It results in the idea that nobody should be denied the opportunity to learn because of age, socio-economic background, academic reason, physical disability, or geographical location. Furthermore, the term distance learning implies a particular set of educational principles and practices, one of which is "learner autonomy" (Garrison, 1989).

Previously, Moore's concept about independent learning was of quoted. Part of his statement was : " ..Independent learning and teaching is an educational system in which the learner is autonomous .." (Moore, 1973 : 663). In some cases, distant students appeared to be generally classified as autonomous students in a sense that most of the time they are separated from their learning environment. Nevertheless, Moore described that in the context of distance education, "distance is not theoretically measured in physical terms - in miles or minutes, but in the extent to which a particular teaching / learning relationship is individual and dialogic" (Moore, 1983 : 76).

Dialogue which Moore referred to involves the idea of making and exchange of meanings in communication process between two parties, namely instructor and learner (Evans and Nation, 1989). Dialogue is mainly developed by interaction between instructor and learner in the course. The interaction does not have to be created by any form of physical meeting. It can be created via "tutorial-in-print" as earlier discussed. It can contribute to learning in relation to printed as well as audio-visual materials. Holmberg believed that non-contiguous communication between tutors and learners is one of the most important elements in the teaching and learning of distance education (Holmberg, 1989 : 4).

It is suggested, nevertheless, that one way to promote "independent study" is to allow students to have control over their learning. The concept of 'control' is introduced as the educational transaction at a distance (Garrison & Baynton, 1987 : 5). Theoretically, control is the opportunity and ability of a student to influence, direct, and determine decisions related to the educational process. For a student to be able to control the distance educational process there must be a dynamic balance between independence and other elements, namely, power and support between instructor and learner through the process of two-way communication in the learning situation.

'Power' refers to the ability or capacity of a student to take part in and assume responsibility for the learning process. It is influenced by the learner's attitude, emotional maturity,

cognitive style, self concept, and motivational level (Ibid : 7). Besides intellectual skill, learners must also possess the incentive to learn, have confidence in themselves, and skills with which to approach, maintain, and complete a learning programme.

Types of students' power described above can be achieved through the support they get. This mainly refers to the resources that they can access in order to carry out the learning process. However, support can include the readability of course materials as their facilitator in learning. Providing assistance and the right sort of guidance in the educational process encourages greater control on the part of the learner.

Independence, power, and support must work in harmony in order for the student to have the appropriate degree of control over the learning process. If one of these factors is reduced, the degree of control by the student over the learning process is diminished (Ibid : 8). It is then the challenge of the distance educator to maintain, or increase the degree of student control over the learning process.

Chene also reveals that independence in learning can be increased simply by shifting to learners the increased responsibility for various parts of the learning process (Chene, 1983). Nevertheless, the task of increasing learner control is a complex one. Students who have much experience of traditional education might not know how to handle such a situation. Providing

students with opportunities to become self-directed learners is necessary, but not sufficient. Students need also support when going through that process.

It is reasonable to say that face-to-face interaction, or human support, can be substituted by an appropriate form of dialogue to enable learners to become actively involved with learning material. Similarly, inappropriate face-to-face interaction can discourage dialogue in the learning process. This is because dialogue is meant to stimulate learners to interact with learning material to some extent. Much of the most useful interaction between a learner and the learning material is, according to Bates, "covert" and described as "thinking" (Bates, 1990). Therefore, dialogue is not merely about the transmission of messages. It refers to "a meeting of minds", rather than a physical meeting (Moore, 1986).

It is interesting to note here that the revolution of ideas in educational context originated from the West. Most of the less-developed and developing countries have been told about the revolution, but had never experienced it. Gheddo considered this as the major cause that did not allow those countries to be fully developed (Gheddo, 1973). It is argued however that another major cause that restricts us - developing countries from fully absorbing the Western revolution ideas in education is "culture".

5. Traditional values in education : a barrier to distance learning

As mentioned above, a revolution has occurred in education during the past few decades that sought the "learner centred approach". The idea of this new approach in education was based on three basic principles. Firstly, each individual learns subject areas or skills in different ways, and probably at different times from other learners. Secondly, one can best learn by experiencing. Thirdly, learning is a lifelong process (Moore, 1983 : 69). It has been suggested that experience in coping with distance and autonomy at any level of instruction could prepare learners for a lifetime of self-directed learning which is the ultimate goal of distance education (Wedemeyer, 1977).

In the field of distance education, autonomy is usually considered to be the prerequisite for successful distance learning, and an ideal which distance education is meant to serve. Since autonomy could prepare for self-directed learning as stated in above paragraph, self-directed learning is then a process that should be promoted in distance education.

Self-directed learning cannot be distinguished from the process of autonomous learning. According to Moore, autonomous learning is "the will and ability to exercise powers of learning, to overcome obstacles for oneself, to try to do difficult learning tasks, and to resist coercion.." (Moore, 1973 : 667).

Once learners become autonomous, the role of the tutor is changed. The instructor's role in autonomous learning is as a consultant or a helper. The instructor needs to be receptive, rather than intrusive. His or her role is then to provide information and/or advice that would help learners discover their own problems, aptitudes and answers by themselves. In other words, it is to encourage and help learners develop their capacity for self-direction.

Learning is an internal process, controlled by learners themselves. The instructor only can facilitate that process. In order to facilitate, they must trust students to assume responsibility for their learning. In addition, they can create conditions in which learning can take place by preparing appropriate educational programmes for the learners. It is necessary for both instructor and learner to be ready for the change in the learning process.

Distance education is claimed to be the educational system that can develop learners through the process of self-directed and intellectually self-reliant learning. This goal can be well achieved or not dependent on how far its participants understand, or are encouraged by the society to understand, the ideas of the learning process in the distance educational context itself. This means that general support for the process must be provided by the institution and that self-directedness needs to be valued not only by students, but also by persons involved in designing materials for distance learning courses and tutors. Otherwise

students, instructors, course designers as well as the institution can be sources of barriers which limit the benefit of self-directed learning. As revealed by Rowntree :

"No changes in an educational system will be of any significance unless the social organization of education is totally changed, this is, unless the system itself is changed."

(Rowntree, 1986 : 243)

This is to say that a distance education system that fails to introduce the whole concept of life-long education to students can be considered as merely an alternative form of the same traditional style of education. Accordingly, UNESCO, the organization actively engaging in promoting distance education throughout the world stated as follows :

"This is both an opportunity and a threat. It is a challenge. On the one hand, it is an opportunity to liberate teachers and students from the traditional grind of face to face teaching and immerse them in a rich instructional experience based on a wide range of carefully planned learning experiences. On the other hand, if institutions are unable to respond to the challenge of producing good instructional materials, the lack of quality instruction could lead to fierce public criticism and the ultimate demise of distance education."

(UNESCO, 1985 : 26)

Most distance education models in use around the world have been adopted from the West. The system of distance education does not offer only equality in education but also alternative learning formats. Many developing countries are successful in imitating this Western model as a system that can respond to the educational needs of millions of people. Nevertheless, only a few can fully apply the learning philosophy of distance education into their traditional context of education. Traditional forms

of teaching and learning can still be found in distance educational programmes in various countries. Many of these programmes do not view learning as the active construction of learner meaning. Despite the problems resulting from differences in cultures, distance education programmes and instructional activities should accentuate the development of self-directed learning and learner-autonomous behaviours. In other words, to make progress in distance education, one should fully apply the fundamental theory behind this form of learning.

6. Self-direction and its application to the context of Thai education : a selected example

Even though Thai people in general believe in a traditional way of learning, there have been attempts to promote new ideas of learning into Thai Society. One of them which is closely related to the concept of self-direction is "Khit-Pen".

Literally, "Khit" means to think while the word "Pen" means to be able, or to be able to know how. So, "Khit-Pen" should be translated as "to be able, or to know how to think".

Khit-Pen, in 1970, was introduced by Thai educators who have tried to use human resource development as an educational aim in the adult education context. Not until 1977 was Khit-Pen implemented in the National Education Plan as an educational objective. The plan was stated as follows :

"In the implementation of education at every level, the purpose is to enable the learner to know how to think (Khit-Pen), to do, to solve problems and to enjoy working."
(Ministry of Education, 1977 : 10)

Furthermore, Khit-Pen has manifested itself into the Fifth National Economic and Social Development Plan of Thailand (1982-1986) as a new philosophy for adult education. A part of its policy is outlined below :

"There will be acceleration in the implementation of more qualitative and quantitative non-formal education programmes in order to help the people acquire occupations which are in coherence with the need of the labour market for national development, and in order to foster the people to become capable of thinking, doing, and solving his own problem." (National Economic and Social Development Board, Office of the Prime Minister, 1982-1986 : 247)

Based on the concept that "knowing how to think" could lead a person to the most effective means of development, the process of Khit-pen has been described as follows :

"A man who has mastered the process of Khit-Pen will be able to approach problems in his daily life systematically. He will be able to examine the causes of his problems. He will be able to gather the widest range of possible courses of action and weigh the merits of each option, based on his own values, his own capabilities, his personal situation, and the degree of each solution."

(Vorapipatana, 1975 : 6)

The above paragraph shows that the process of Khit-Pen is very closely related to the concept of self-directedness in learning. As a matter of fact, Khit-Pen is the philosophy that has been profoundly affected by Carl Rogers and Paulo Freire (Nopakun, 1985). Rogers' concept of "freedom to learn" has been previously discussed. It emphasizes the principle of self-directed learning and the teacher's role of being a facilitator. Within the same philosophy of Rogers, Paulo Freire focuses on "conscientization" and methods of problem-solving. "Conscientization" has been described in the following page :

"a word coined to describe the arousing of man's positive self-concept in relation to his environment and society through a liberating education which treat the learner as subjects and not as objects .."

(Nopakun, 1985 : 9)

The concept of Khit-Pen, however, has not been fully established from Western ideas. It has merged with the Thai way of life and thinking. Interestingly, Srinivasan argued that the assumptions underlying the concept of Khit-Pen were drawn directly from Buddhist philosophy that dominated a majority of Thai people (Srinivasan, 1977).

Basically, Thais believe in the Fourth Noble truth of Buddhism which is that : 1) life is suffering 2) this suffering can be cured 3) in order to cure this suffering, the origin of the suffering must be identified and 4) the right way or ways that will alleviate the suffering should be carefully chosen. This basic Buddhist philosophy accords with the concept of Khit-Pen in that both of them encourage people to think logically to solve their deep problems. It could be said then that the principle of Khit-Pen is "critical thinking" which is the crucial concept for the practice of self-directed learning.

Dated back to 1976, Hudgins summarized the term "critical thinking" as a general attitude of searching for evidence relevant to a conclusion. The attitude must be supported by an array of intellectual skills appropriate for the analysis and evaluation of arguments (Hudgins, 1976).

In relation to the principle of critical thinking, the Khit-Pen process requires three types of information for a person to solve his or her problem. They are : information on self, information on society and environment and academic information. The first category, information on self means knowing one's strengths and weaknesses physically, economically, and intellectually. The information on society and environment is a combination of factors that surrounds and affects an individual throughout his life. One cannot escape from one's society and environment so that the thought of others and the consequences of society's actions are the important factors that one must be concerned with. Academic knowledge simply means the information acquired from any educational institution and any discipline. (Nopakun, 1985)

The three types of information mentioned above need to be used simultaneously for the most appropriate solution to a problem. This can be considered as a kind of integration which is the crucial method employed in designing distance learning material. The basic idea of integration is to allow students to use information from various sources to form their understanding regarding subject matter as a whole. Similarly, Khit-Pen encourages an individual to use various aspects of information, not only from one dimension, to find solutions to problem.

Therefore, it could be said that the Khit-Pen concept was proposed to Thai society as an attempt to change attitudes towards education such as those that consider education as a

matter of repetition, copying and rote learning. This kind of consideration implies the belief that knowledge can be taught separately, in small pieces so that each piece of knowledge should be tested individually, rather than as a means of integration that allows students to relate one piece of knowledge to others.

The criteria for integrating three types of information to clarify and solve the problems is a distinctive feature of Khit-Pen which differentiates it from traditional education in Thai society. The example showing how Khit-Pen is applied to non-formal education is stated below :

"The classical example in using information on society is explained by Kowit Vorapipatana by citing the example of a discussion by adult learners in their literacy class on the traditional habit of eating raw meat; 'Larb', a favourite North-Eastern dish. The group after discussing the health hazard of eating raw meat, and their traditional preference for it, came up with optional courses of action. They will try to restrain from preparing 'Larb' for their own family's diet, but admit that they may have to eat some at social gatherings such as village festivals, because it is a traditional North-Eastern food." (Ibid : 33)

This example shows the solutions were made by information about health together with the villagers' preferences in accordance with the obligation of their social life. The example also shows how Khit-Pen can be used in harmony with ordinary daily life. However, it is not only that. Khit-Pen has also been integrated in Thai formal education. Initially, it was implemented in the National Education Plan (1977) as mentioned before. It has been also mentioned in the National Education Curriculum at the primary, lower secondary, and upper secondary level.

The Thai Adult Education Division, Ministry of Education launched a "Functional Literacy Programme" based on the Khit-Pen concept in 1970. Two major objectives are to : 1) introduce learning activities focusing on the needs and conditions of the rural population, 2) introduce techniques that motivate adult learners to seek alternative solutions based on an analysis of their living conditions.

Even though the philosophy employed in the Thai Functional Literacy Programme is based on the concept of Khit-Pen, the instructional technique includes the use of instructional media both to stimulate and facilitate learning. The instructional method for Khit-Pen consists of the following steps :

1. Use of photographs to introduce the lesson concept.

The teachers show the photographs to the learners, in order to stimulate learners to reflect upon conditions they and their community confront.

2. Study of key words to introduce lesson concepts.

This is aimed at aiding the learners to develop a vocabulary of words commonly found in printed materials in rural areas.

3. Problem posing to stimulate lesson.

The criteria in problem posing are : 1) the issue to be discussed should be posed in such a way that there is not only one correct answer, 2) the learners should be stimulated to use the three types of information mentioned earlier.

4. Small group discussion.

The group divides itself into small groups of six to seven to discuss the issues posed. The teachers do not participate, but act as facilitators.

5. Learners find their own solution.

The learners, not the teachers choose their solution to the issue posed.

6. Key and reading drill.

After discussion, the key words on the lesson cards are drilled and memorized. When the learners have mastered the key words, the teacher guides them through several readings of the lesson passages.

7. Writing exercise.

The vocabulary used in these exercises includes emphasis on the words of the lesson.

8. Numeracy drills.

The last component of each lesson concerns basic computation skills.

(Nopakun, 1985 : 56-57)

Concerning the practical success of Khit-Pen, some research on Khit-Pen was conducted. Briefly, the research revealed that despite its inclusion in the curriculum, the implementation of Khit-Pen in teaching and learning process at the primary and secondary level had not been achieved. In higher education, Khit-Pen has not received much interest. The curriculum emphasizes content in a narrow sense, and does not allow students to apply their knowledge at the practical level. In relation to non-formal education, the emphasis has been on accumulating academic knowledge. (Krutta, 1985)

To achieve the educational aim of Khit-Pen, it is important that the teachers at any level of instruction understand the true meaning of Khit-Pen. They should also be open-minded enough to appreciate the concept of Khit-Pen and apply it to the teaching and learning process. To emphasize this, it has been said that there should be a long-run plan for the implementation of Khit-Pen. Various educational institutions as well as social institutions such as the mass media should play a more active role in promoting the Khit-Pen concept.

With regard to STOU, Khit-Pen has not been directly stressed. However, the intention to promote life-long education is clearly stated in its educational goal which is as follows :

"In pursuing the philosophy of life-long, continuing education, the goal of STOU is to 'open and expand' the opportunities for higher education to working adults and secondary school graduates .." (STOU, 1989 : 98)

In the context of distance education, it has been argued that knowledge should not be provided in passive ways. Holmberg comments on the undesirable nature of "spoonfeeding" in distance education programmes and the quest for student autonomy in learning (Holmberg, 1989). He suggests "developing awareness of problems and of the plausibility of different approaches and solutions, as well as inspiring students to take up positions of their own" as a desirable strategy for distance education (Ibid : 131). With regard to media, it has been argued that "if media are employed merely to replicate a regular class without broadening opportunity and shifting responsibility and freedom to the learner, the system cannot be defined as independent study" (Wedemeyer, 1971 : 552). In fact, distance education can be the ideal context to encourage autonomous learning behaviours through the development of self-regulated learning cognition. However, it will be seen more clearly in chapters 5 and 6 how traditional values in Thai education affect the way distance learning materials have been produced.

Based on the features described above, self-instruction can be seen as one of the advantages inherent in the materials used in

distance education. Self-instruction in most distance education institutions is presented in the form of multi-media materials which should be carefully selected, as well as systematically designed. Multi-media based distance learning materials, developed within a good multi-media production system, can ensure the success of distance learning courses. In the next chapter, the course production process in two distance learning universities : STOU and the OU will be observed.

CHAPTER 4

MULTI-MEDIA SYSTEMS IN OU AND STOU

In chapter 2, the structure and characteristics of STOU were described. This chapter focuses more on the course design process of STOU and the OU.

1. The Open University

The Open University of the United Kingdom or the OU was established by Royal Charter as an autonomous body in 1969. It was not until 1971 that its first course was presented. The OU has been described as the best known and most imitated of the Open Universities all over the world.

The OU was initially proposed as a home-study university employing broadcast media as an integral part of its teaching system, together with tutorials, practical work and discussion groups. The main objective of the OU is to offer a second chance to those deprived of higher education. Presently, the University's permanent headquarters is located in Milton Keynes, forty five miles north west of London.

The OU was established by Royal Charter as an independent and autonomous institution which was authorized to confer its own degrees and to be governed by a council. Academic staff have been organized into six faculties namely Arts, Educational Studies, Mathematics, Science, Social Sciences, and Technology. To bring students from different educational backgrounds to the same level for future study, first-year courses are designed as

foundation courses. Both foundation and higher-level courses have been produced by the OU course teams. There is an agreement between the OU and the British Broadcasting Corporation (BBC) for the production of audio-visual material and broadcast programmes.

In terms of admission, besides the requirement that applicants must be at least 21 years old, no other entry qualifications are required. The University use a credit system for general courses. To obtain an ordinary degree, six undergraduate credits are required.

The courses are offered at four levels : foundation, second, third, and fourth. The foundation courses are designed for the first year of study. A student is not allowed to proceed to any course at the second or any level until he or she successfully completes and acquires a credit in one foundation course. After foundation level, students can make up their own programmes of study by taking any combination of courses. In addition, students can take half-credit courses each of which lasts over ten months but involves only half as much work during academic year.

In terms of delivery system, text is the core medium which could be supplemented by any of broadcasts, home experimental kits, tutorials, and summer schools. OU students are required to attend a one-week summer school which is normally held on the campus or residential universities once a year. The summer school is considered an intensive study week. It includes

lectures, seminars, field work and informal discussion. This one-week school is normally staffed by OU academics and part-time tutors.

2. Some aspects of OU broadcasts at its beginning

OU television programmes

In the Open University teaching system, educational broadcasting, especially of television programmes has been one of the most important factors that has led to the University's international reputation for high academic standards.

The Open University broadcasts are produced in co-operation with the BBC. Government funds to the University are used to pay the BBC the full cost of its services. BBC producers are generally recruited with high academic qualifications in the areas in which it is envisaged they will work. They are trained to be producers. It is important to note here that the producers working for the OU have the same conditions of service and career prospects as the producers working in other BBC departments.

At least one producer is assigned to each OU course team. At the very beginning of the OU, the team usually included an educational technologist who advised the course team on appropriate uses of broadcasts. Nowadays, producers have taken on this role. The producer works with one or more academic course members in order to make the programme relevant to the needs of the course. In the OU system, however, its producers contribute not only to the technical side of production but also

occasionally make a substantial academic contribution. This has been possible in the OU teaching system since, as mentioned above, the majority of its producers are graduates in the academic areas in which they are working.

In the early days, OU staff had limited experience of producing educational programmes. Bates pointed out that the limitations came from : 1) a lack of experience in the design of a truly integrated multi-media teaching system 2) a lack of knowledge or consideration of the psychology of adult learners in a multi-media system and 3) an inability of some students to watch or listen to OU broadcasts (Bates, 1974).

There are many different theories as to how students learn and may be helped to learn. However, the OU evidence suggested that 'certain styles of presentation either alone or in combination with certain educational objectives make very sophisticated demands of students and that some students need to be introduced to these and allowed to practise them before they may be expected to handle them confidently' (Durbridge, 1980 :3). Most of the OU programmes require students to do some kind of preparatory work before viewing the programmes. Broadcast notes are to help students to prepare themselves before exploiting its programmes. The important aspect of the notes is to mention any pre-requisite reading assumed to have been done before transmission.

It is important also that the student is on schedule with the rest of his or her studies. Once the student gets behind

schedule, the greater the difficulty he or she is likely to find with the pace of television programmes (Bates, 1980). Bates also claims that if the student is working on schedule, he will find that the book and broadcasting programmes are tightly integrated since the programmes would usually deal in the same week with the same subject that he was studying in the book (Bates, 1970). Nevertheless, it would be very difficult to design a programme at the right pace for all students.

Durbridge divided the OU programmes into four groups : 1) programmes that expect a high level of activity during transmission 2) programmes that require students to follow an argument or a process and to understand it 3) programmes that provide a specific kind of experience and 4) case studies which require students to analyze the links within the programmes and textbooks by themselves (Durbridge, 1980). In the past, most of the OU programmes were of 'lecture to camera' approach. Gradually, however, different styles of presentation have been introduced to make the best use of television appropriate to the content.

In terms of allocation of broadcasts, at the beginning (1970) OU provided the same numbers of radio and television programmes for each foundation course. Each programme in the OU foundation course was supposed to be similar in level of difficulty and amount of work demanded. After foundation level, courses based on the Arts, Social Science and Educational Studies faculties received on average one radio programme per unit, and one

television programme for every two units. The ratio was reversed for courses based in the Science, Technology and Mathematics faculties. In 1974/75, OU policy for allocation of broadcasts changed to : 1 programme per unit for Science, 2 programmes for every three units for Technology and Maths courses and, 1 programme for every two units for Arts-based courses.

However, the ratios could be varied in accordance with the differing needs of individual courses. It was generally considered that the need for broadcasts was greater in the science-based faculties than the arts-based faculties. The Science faculty, for example, claimed that it was essential that students watched the television programmes, and that students should have not registered for the courses unless they could watch the programmes (Bates, 1971d, 1972a). This is because television was being used as a substitute for direct laboratory experience. For the other courses, broadcast programmes were viewed as only additional.

In truth, allocating broadcasts to different subject areas has been difficult, even in the OU system. The numbers of OU programmes are not only determined by its allocation policy, but also by the transmission time provided by BBC. Since its earliest years, the OU has faced the problem of loss of transmission time. The University had to fit its programmes into a fixed number of transmission slots. In 1978-79, only six per cent of the available television slots were 'prime' slots which literally means the time when broadcasts can reach about 80 per

cent of the students. Almost 30 per cent of the rest were classified as 'poor' because it could offer less than 50 per cent viewing opportunity (Grundin, 1979). By 1978, due to the shortage of available transmission time for OU television programmes, some 20 per cent of all programmes produced could be shown only once during the academic year. Many of them were shown at very inconvenient time of the day. As a direct result of the loss of quality transmission time, viewing rates were dropped to 48% in 1984, compared to 65% in 1977 (Bates, 1987).

Apart from poor transmission time, it seems that OU television gradually lost its popularity among OU students. In 1984, the overall average of ratings concerning helpfulness of television programmes in facilitating learning was slightly decreased (Grundin, 1985). Twenty per cent of the students in the same year thought that television was not relevant enough (Ibid). To support this, the same research showed that in the late 1970s television was typically ranked in the middle of the list of OU instruction material in terms of usefulness. In 1984, only three out of 18 OU components had helpfulness ratings lower than television (Ibid).

However, it should be noted here that this does not necessarily mean that the programme that is not watched by students is 'poor'. It might simply imply that the programme is not regarded by students as a necessity. For instance, if students are satisfied with the information they gain from the textbook, they

would tend to perceive other course components as unhelpful to them.

There have been many kinds of educational television programmes produced by OU. Presumably, OU programmes have been produced under the criteria that most of its students are adult workers. Their needs in learning are supposedly different from young students in conventional universities. Instead of giving its adult students "direct" lectures, the University has adopted various kinds of programmes for its teaching. The case-study type programme is one of them.

Since 1979 the approach to OU programmes has shifted from the televised lecture to the presentation of much more "primary source" (Miller, 1979). Generally, the programmes that use primary sources are those that deal with case-studies or real-life situations. Thanks to the broadcasts, certain relevant events or aspects of the real world situation can be brought to students in the limited transmission time. Nevertheless, a case-study could probably be the most difficult kind of programme for the students to deal with. Indeed, Bates (1973a) observes that there was strong criticism from some students that while case-study programmes were generally interesting, they were not usually helpful enough. For instance, some evidence from a real-world situation could possibly contradict the theories and concepts being expounded in the correspondence texts. Some case-studies could not be explained using the information in the written texts. This type of programme required special analysis

and careful judgement from individuals. The programmes would be most educationally effective only when the students know what they were supposed to do with the materials provided.

On the other hand, a case study can be a challenge for many students. In 1979, John Miller, the OU executive producer, found out from his research that OU students did not want a simple repetition of what was already in their correspondence texts; they wanted an experience that could only be conveyed through the broadcasting media. If television or radio did not advance their knowledge or understanding of the subject, it was just dropped. For Miller, the most successful programmes were those with creative imagination that would support the students' understanding of a particular subject Miller, 1979).

Naturally there were two groups of students whose expectations from broadcasts were different : one who preferred a challenge in learning from broadcasts, and another who wanted a "direct message" from the broadcasts. The latter expected broadcasts to directly confirm, or in a way repeat what they had learnt from the texts. The questionnaire survey concerning attitudes of OU and STOU students towards broadcasts clearly shows these two kinds of attitude in learning (see chapter 6).

OU radio programmes

In the OU, radio has never played a major part in the University's teaching system (Bates, 1978). The number of radio programmes was greatly reduced, even in the OU's first few years.

In 1973, over 360 new radio programmes were produced by the University. Six years later, the number of radio programmes was reduced by 58%. Whereas in 1974, all 58 courses had at least some radio programmes, only 15 of the 23 new courses in 1981 used radio. In addition, in 1982/83 OU course teams requested 130 radio programmes even though the production of radio had dropped by over a half in the last five years (Bates, 1979b).

Nevertheless, students would get one 20-minute radio programme a week. Initially, most radio programmes were broadcast twice. One of the two programmes was broadcast at the most convenient time for students, such as Saturday morning or an early weekend evening. Over 90 percent of OU students had a VHF radio to receive OU transmissions. So, transmission time and students' accessibility to the programmes were not the problem.

The OU has used radio as a component of its course from the outset. When the OU celebrated its tenth anniversary, it was revealed that radio did not play a major role in most courses (Brown, 1979b). Radio has not succeeded in attracting large audiences. More importantly, in most courses, it is heard only by a minority of students (Ibid, 1979). Some radio programmes have less than 30 students listening to them (Radio Transmissions Working Group, 1988). The problems seems to come from two main factors: the attitude of course teams towards radio and the lack of realisation by students of the benefits of radio. For the course team, the role of television has always been more important than radio. Demands from course teams for television

programmes have been much greater than radio. The attitude of the course team or other members of OU staff towards radio indirectly affect students' use of radio. In the OU report about student usage of radio /audio in 1982, it was found that in all courses, tutors referred to the content of the radio programmes much less frequently than to the content of other components. The students have consequently rated radio as the least helpful of all their course components (Bates, 1982b).

The problem of students not listening to radio programmes seemed to be the content and the style of teaching presented in the programmes. It has been shown that students are six times more likely to report difficulties learning from radio than from television (Brown, 1980). The nature of radio requires high participation from listeners; especially when one want to get a full understanding of the lesson behind the programmes. From the OU survey, some students found it difficult to maintain concentration throughout the programme (Bates, 1982b). Another factor was that the students did not take radio seriously as a learning resource. Approximately half of the OU students who registered for introductory courses said that they never listened to the radio without doing something else (Brown, 1980). Consequently, they could not follow the overall presentation and finally gave up listening.

Apart from that, helpfulness rating for radio was low. One course in two had a helpfulness rating below 20% for radio, compared with one in ten for television (Berrigan, 1979). The

influential factor that could directly affect the use of radio is the attitude of OU students themselves in respect of the role of OU radio programmes as a course component. It could be argued that students have never taken radio seriously. For example, forty per cent of students who missed broadcasts said that one of the main reasons was that they just simply forgot (Ibid). In general, radio is treated as an entertainment medium. Most people's experience of radio is limited to music and news. The majority of OU radio programmes, on the contrary, were either straight talks using one or two academic speakers or discussions between three or four speakers (Bates, 1979b). Accordingly, students have to be able to sustain listening to particular formats to the extent to which they can extract information as well as analyze or apply the material aurally provided. This is supported by the OU survey that 'new students were concerned that they might have more difficulty in studying from radio than from other components' (Radio Transmissions Working Group, 1988). This suggests that students are uncertain about the role of radio as a course component. Brown points out that this 'fear of the unknown' seems to affect students' reactions to radio more than their reactions to television (Brown, 1979b). From the same survey, he also found out that the pace of radio programmes could be so fast that students could get lost since they did not have a chance to ask questions or review earlier sections (Ibid, 1979).

Like television, students need skills to use OU radio programmes in the most effective ways. As mentioned above, OU radio

programmes take the form of a talk or a discussion. The majority of students have little or no experience of the OU formats. This has a direct impact on students' ability to learn from radio programmes. It has been shown that when less directive presentation techniques are used, students who are able to listen more than once (probably through taping the programmes) are better able to apply the material and to recognize the underlying aims and/or objectives (Berrington, 1979).

It is important that aims and objectives of radio programmes should be clearly stated. Bates suggests that the objectives should be stated in 'student-focused terms' rather than 'programme-focused terms' (Bates, 1982b). From his research, however, 71 % of the OU programmes surveyed in 1982 were more commonly stated in 'programme-focused terms' (Ibid, 1982). This means that most of the OU programmes provided students with information regarding what the programmes did, rather than what students would do.

Nevertheless, there was a significant difference in students' use of radio in different faculties. The survey of OU radio programmes that were produced up to 1970 has shown that: 1) One quarter of Science and Technology as well as one third of Maths students made no use of OU radio programmes; one tenth of students in these faculties said they did not listen to the programmes because the ones on previous courses had not been worth listening to. 2) Helpfulness ratings for radio are particularly low in the Mathematics, Science and Technology

faculties; the proportion of listeners who find radio programmes 'very helpful' is less than one-third in the vast majority of courses -- it is higher than one third in a number of Arts faculties only. 3) One eighth of students overall said that they found radio a difficult medium to use in studying; this rose to one-fifth of all respondents in the Maths faculty (Berrington, 1979). To support this, the Radio Transmissions Working Group has reported that in 1988, the greatest use of radio was found in the Arts Faculty. It has shown that from 1982-1987, there were 16 programmes made for the Arts foundation course, while there were no radio programmes provided for courses in Mathematics, Science, and Technology (Radio Transmissions Group, 1988).

According to the survey result, it is obvious that students from different faculties responded to radio in different ways. The Arts students gave higher ratings to radio than those from Mathematics, Science and Technology. It could be concluded that radio is probably suitable for certain subjects. It is the most appropriate medium to present theoretical aspects of the course. In some areas like Mathematics, Science and Technology, students could find it difficult to maintain concentration without an accompanying print or visual element. Since radio broadcasting programmes cannot be stopped midway, students who lost track of the programme's argument would be unable to find their way back into the programme.

More evidence is found in Bates' survey in 1979. It confirmed that in two-thirds of the OU programmes, students were not required to carry out any activity during the programmes, other than listening (Bates, 1979b). There were no suggestions or notes that would help students to concentrate on certain points. Consequently, many students wanted radio programmes mailed to them as cassettes rather than broadcast, again except in the Arts faculty (Radio Transmissions working Group, 1988). Relevant to this was a report from Brown saying that most Arts students did not expect any difficulties from radio programmes (Brown, 1979b).

In general, the OU radio programmes seemed to be less attractive to the students. Most of the programmes tended to develop the theory or ideas introduced in the texts. Six percent of the programmes presented a critical viewpoint of the text. The majority of the programmes were, however, presented in the form of talks, interviews and discussions. When using radio for dramatization, the provision of resource materials was rare.

More than half of the OU radio programmes provided material of a theoretical nature. Most of them were used to develop an aspect of the text. The programmes of a theoretical nature generally "threw light on the unit". They were directly related to the texts. Enrichment programmes were broadcasts of little direct relevance to students. These programmes were designed to reinforce the study. This type of programme was mostly found in the Mathematics, Science and Technology faculties. In general, a section of the unit which was complex would be picked up to be

clarified in the programmes. Another type of programme being used was that of integrated programmes. The integrated programme normally started with the overall picture of a section of the course or even the entire course, and then drew out the main points.

Practical and illustrative programmes were used occasionally. For example, music programmes could be directly used to illustrate or demonstrate the analysis of the text.

Primary source material for analysis by students was used more in Educational Studies and Social Sciences than in other faculties. The programme generally took the form of interviews with or recordings of people in their particular situations. This type of programme required high participation from the students both during and after listening to the programmes.

Case-study type programmes were found in the Science and Technology faculties. Case-study programmes often drew upon existing research. Frequently, the programmes were used to present eminent people and decision-makers.

Even though various kinds of programmes have been used in association with the correspondence texts, radio programmes for the majority of courses were appendages of units rather than planned parts of them (Meed, 1975). Many course teams were accused of not formulating any overall coherent role appropriate to the special characteristics of radio (Bates, 1979b).

Interestingly, an early OU policy for radio stated that programmes were meant to provide interesting background information, historical, social and biographical to the course. Later this policy was abandoned and the faculties tended to use more programmes for reinforcement and direct teaching (Meed, 1976). Like television, strategy decisions on OU radio programmes lie with the course team. Nevertheless, the programme ideas have always been left totally to individual producers. Most BBC/OU producers are responsible for both television and radio programmes. It would appear that producers have allowed television to be the dominant medium. For example, in 1988, there were 32 more slots than radio programmes for transmission over the course of a year (Radio Transmissions Working Group, 1988). In addition, it has been shown that radio programmes were often made late, with little preparation (Ibid, 122).

While the use of radio has decreased dramatically, audio cassettes began to be introduced as components of OU courses. The growth in the use of the cassettes has been very rapid. In 1981, only 158 new radio programmes were planned, compared with 227 new cassettes. The cassettes seemed to have been introduced to replace radio in OU. Students also value them as a more helpful component than radio.

Even though radio could not play a dominant role in the OU teaching system, its effectiveness can not be denied. Firstly, it is the cheap medium. Secondly, it can reach a wider public beyond registered students. Integration of radio programmes into

blocks, modules, or units is a crucial factor in making radio programmes. One of the methods that has developed in the OU is "radiovision". Radiovision combines the use of printed and audio-visual materials. The students can co-ordinate the materials provided with the programmes.

3. The overall structure of the course design process at the OU

Each course of the OU has been prepared and produced by a course team. The course team concept was claimed to be 'a revolutionary concept' (Perry, 1973 : 150). In the course team process, the academic does not work alone, but with a group of experts from various fields in order for the purpose of "integration". It should be noted here that the OU course team has achieved international prominence (Hawkrige, 1994 : 97). Its concept and model is also replicated by STOU.

The OU course team normally consists of academics, BBC producer(s), staff tutors, editors, graphic designers, media librarians, academic consultants, and external assessors. There used to be at least one educational technologist in every course team to advise on matters such as structuring of content, clarification of objectives, media selection, student activities, self-assessment items, test, examinations and evaluation. Presently, it is not necessary to have educational technologists in the course team. One reason for this is the growth in numbers in a course team : there are not enough educational technologists to go around. Another reason is that many course teams have

learnt from their own experiences to do the job of educational technologists by themselves.

Generally, the OU course team working process is started by defining the purpose, the nature, the overall framework as well as the sub-sections of the course to be produced. As a result of discussion and consultations among course team members, the design of the course emerges. The next step is to plan the instruction 'from the top downwards', beginning with the central purposes of the course.

Like other distant learning texts, the OU correspondence text is not just the text that converts ordinary lectures into print. The style of its correspondence text has to be so well designed that it can encourage students' active involvement. Lewis reveals that 'the main teaching point of the correspondence unit must be fully explained as well as misleading statements and irrelevant scholastic displays must be eliminated' and that 'all written materials need in fact to be well-structured and self-explanatory and pitched at the right level of difficulty' (Lewis, 1971a : 6).

The whole process of the course team is time-consuming. One reason for that is because there are many people involved in the process. Each person is responsible for a specified activity. The course production at the OU is generally divided into three main phases, and a number of sub-phases. They are shown in the following page :

- PHASE 1 PLANNING
 - 1A Course Planning
 - 1B Unit Planning

- PHASE 2 WRITING
 - 2A Unit Writing
 - 2B Developmental Testing
 - 2C External Assessment

- PHASE 3 EDITING AND PRINTING

(Lewis, 1971b : 116)

In the OU, a course team is formed under the general direction of a Course Team Chairman. As mentioned before, their work begins with determining aims, objectives and content of the course to be produced. In this way essential activities are clarified and course writers are assigned to produce certain parts of the course. In addition, each member is responsible for monitoring related parts of the course that are produced by other members of the team. From time to time, the course team meets to consider the progress of each unit. In the meetings, alterations and refinements that might contribute to the unity and effectiveness into the course are suggested and discussed. At this stage, there can be several other kinds of advisor (such as media designer, publishing officer, copyright expert and so on) invited to solve any problem that can occur. Specialists, consultants and assessors are called on to verify the content of the course and to provide suggestions about broadcasting programmes of the course.

In the early days of the Open University, it was suggested that BBC producers should at regular intervals attend the course team

meetings in order to justify in what way media should be integrated. In practice, it has always been rare for every member of the course team to be present at any one meeting (see also result of the questionnaire survey I, in chapter 5).

As mentioned before, the course team process is time-consuming. Lewis states that just one week's teaching materials can take 12-15 weeks (working 5 days a week) to produce and that 'experience has shown that at least a dozen academics, working virtually full-time are needed, to produce a complete 36-week course' (Lewis, 1971 : 8). It is also revealed that the average yearly production norm of a science academic at the OU is 1.6 units. These 1.6 units, however, require only 1.5 weeks' work for a student. Bates and Pugh argue that it takes a long time to produce an OU textbook because '1.5 units are equal to 1.5 textbooks of 22,000 words, plus the design of home-experiments and the development of the necessary equipment, assignments, television and radio programmes, etc, plus time for research' (Bates and Pugh, 1975 : 51).

One of the most controversial issues in the course team discussions is the specification of course objectives. The behavioral objectives are useful not only for the students but also for the course writers. The objectives can act as guidelines for course writers because they 'somehow relate properly to the general educational aims' (McDonald-Ross, 1973 : 12). The advantages claimed for behavioral objectives are shown in the following page :

1. They form the only well-worked-out method of rational planning in education.
2. They encourage educators to think and plan in detailed, specific terms.
3. They encourage educators to make explicit previously concealed values.
4. They provide a rational basis for evaluation.
5. They prescribe the choice of instructional means.
6. They form the basis of a self-improving system.
7. The system eventually achieves internal consistency.
8. The system eventually realises in practice the aims set in theory.
9. Objectives serve as a medium of communication.
10. Objectives can be made the basis of individualised instruction.

(Ibid, 18)

For students, the behavioral objectives are seen as 'access devices'. In other words, they help them to find their way through the texts in the way that they know from the objectives what they are expected to gain from the particular unit (Marland & Store, 1982 and McDonald-Ross, 1979).

As mentioned, the initial production step in the course team is to specify the course objectives in some detail. The course is then produced around those objectives. Nevertheless, many objectives presumably cannot get finalized before all the course components have been produced. For some course writers, it could be naturally difficult to think about course objectives if some aspect of content has not yet been written down.

The next steps involve decisions regarding choice of media and media integration. Decisions on these two steps are also undertaken within the course team process. When course objectives are designed at a unit or block level, the choice of media can also be considered. The major underlying principle is

that different objectives may be achieved through different media.

Basically, the OU policy concerning the choice of media is to "find out.. what each medium can do that can't be done in other ways more economically or effectively" (Bates, 1975b :18). Even though resources are already allocated to the course team, the team has freedom in the decision about type and range of media to be used in the course.

To maximize the use of media, it is important to ensure that the course team design the course with the potential of media in mind. Most importantly, 'when there is a wide range of media to choose from, and students are studying individually, with relatively little assistance, the material must to some extent be integrated' (Bates & Pugh, 1975 : 48).

At the beginning, the OU provided every course team with one programme per course unit in foundation level. Later, this policy was changed. The numbers of broadcasts allocated to the course team were reduced. However, the numbers could be increased if there was a reasonable request from the course team. There are some criteria which need to be met to justify increasing numbers of programmes for each course. The following set of criteria was proposed by Tony Bates in 1971 :

1. The course team would need to state objectives for the course, in specific and testable form, that they felt could only be met by an increase in television resources above what would normally be allocated on academic grounds to other courses at the same level.

2. The course team would also need to show that failure to achieve these essentially 'broadcast-based' objectives would render students unqualified in such a course in the eyes of other academics / institutions in the same field.

3. The course team would also need to show that broadcasting was indeed successful in helping to achieve such objectives.

(Bates, 1971d : 3)

The above paragraph indicates that integration is a crucial issue in OU course design process. Course teams should be able to clarify the link between broadcasts and the course objectives : in which ways broadcasts can achieve the course objectives. Clearly stated course objectives also help producers select media appropriate for the instruction.

In the OU, the objectives of the course are generally worked out initially and then media allocations are made. In some cases, certain course objectives are assigned specifically for the use of radio and television programmes, to add the use of broadcasts as an integral part of the course. In addition, in order to facilitate learning from broadcasts, the OU course team is requested to write broadcast notes. The notes are a guide for students to carry out activities following a programme, or to answer certain key questions which arises from their watching or listening. The development of broadcast notes has been found to be very helpful.

Even though the OU encouraged students to use broadcasts, it faced the problem of transmission time. In 1975, more than 400 radio and television programmes were requested from various

course teams. Yet, the maximum production and transmission load at the OU was 300 programmes a year at that time. Finally, criteria for the allocation of broadcasts was settled at one radio and one television programme every four weeks as a minimum allocation for courses which last for the full teaching year. This means that a full-credit course can have at least eight radio and eight television programmes. The normal maximum allocation is one radio and one television programme per unit. This maximum allocation is generally allowed for foundation courses.

Most OU courses are allocated some broadcast programmes but it is possible for some courses to have no radio and/or television programmes, or have fewer than one transmission every four weeks. Once the budget for the course production is allocated to the course team, the team has the full right to decide how the money should be spent. This includes establishing criteria for selecting media for the course.

All the requirements for broadcasts are judged, and have to be approved by the 'Broadcast Sub-Committee'. Generally, the course team submits an 'audio-visual bid' to the Sub-Committee. There are at least three major points that need to be stated in the bid. They are 1) the relationship between programmes and texts 2) the method employed to ensure that students know how to approach the media in its content and 3) the relationship between broadcasts and assignments. Accordingly, the course team also needs to give brief details of course objectives, a course

outline as well as the form of broadcast notes to the Subcommittee (see also chapter 7).

Media integration has been emphasized very much as a key point in producing self-instructional materials in the OU. The evidence of this is shown through its early internal documentation. One of such report that appears to be the best representative was produced by Bates in 1971. This memorandum, namely 'Use of Broadcast in Parallel to Correspondence Texts' was produced as a series of suggestions to senior producers and staff from the Institute of Educational Technology. He suggested that despite the linkage between broadcasts and written material, it was necessary that the students could see clearly how each component of the course fitted into the whole (Bates, 1971c). Integration is the method that has been claimed to be used both in OU and STOU courses. With regard to media, both OU and STOU basically describe "integration" as a method to fit broadcasts into the course. Nevertheless, integration can be used so differently dependent upon the learning philosophy of individual users. Chapters 5 and 6 closely examine the different use of integration in the educational context of OU and STOU. What follows is a description of integration generally found, not only in distance learning courses but in any kind at any level of education.

1. Broadcast programmes have no or minimal interface with the course texts. The programmes are additional. Students can pass the examination without any help from the programmes.

2. Broadcast programmes are linked to the main text without any cross-reference or guidance. Broadcast programmes at this level of integration can be very much associated with the text. Any guidance or explicit linkage between the two is not, however, provided. Students have to learn how to relate the programmes to the text by themselves. There is always a risk that the programme could be misinterpreted by them.

3. Broadcast programmes are linked to the main text by a separate booklet. There is, to some extent a relationship between material covered in the programmes and the text which is stated in a separate booklet usually called 'broadcast notes'.

4. Broadcast programmes are a crucial part of the course. This is a fully integrated combination. Most of the time, there is a cross-reference stated clearly in the text giving the relation between each programme and the specific part of the course. The students are required to listen to or watch broadcast programmes in order to develop the full knowledge of the course. Integration at this level is normally found when the course objectives cannot be achieved through text alone. For example, in order to understand some laboratory experiments, the students have to watch 10 television programmes provided.

At present, STOU use media integration at level 2 which means that there is some relation between broadcast programmes but no reference or any booklet stating this linkage. The OU exercise media integration at level 3. Broadcast notes help to promote

closer integration between print and the broadcasting component of the course in a more explicit way.

4. The overall structure of the course design process at STOU

In terms of STOU course design process, we need to examine the model of its first planning stage. At STOU, the master model, namely STOU PLAN, consists of five major steps.

STEP 1 : SURVEY PROBLEMS AND PUBLIC NEEDS

This is to identify societal problems and needs in order to respond to them properly. Before offering a new curriculum or a new programme, a survey of public needs has to be conducted in STOU.

STEP 2 : DEVELOP THE CURRICULUM

A curriculum in STOU is developed on an integrated model and covers a wide range of subject matter within each area of concentration. Each curriculum consists of the following items :

- Philosophy
- Rationale and principles
- Aims
- Content structure
- Course list
- Course descriptions
- Recommended outline for 15 units in each course
- Unit objectives stated in behavioral terms

STEP 3 : PRODUCE MULTI-MEDIA DISTANCE LEARNING PACKAGES

The major steps of STOU media production include planning, preparation, production, developmental testing, and evaluation.

STEP 4 : IDENTIFY AND IMPLEMENT THE DELIVERY SYSTEM

The identification of the STOU delivery system is dependent upon the existing socio-economic and cultural infra-structure of the country. Furthermore, STOU has created a new infrastructure necessary for its own delivery system. To do this, the University co-operated with existing communication infrastructure resources. Basically, STOU's delivery system is implemented via printed media, audio-visual media, radio programmes, television programmes, community resources, and study centres.

STEP 5 : IDENTIFY MODES OF EVALUATION AND FOLLOW-UP

STOU contributes to two modes of evaluation, namely 1) evaluation of students' learning achievements, and 2) evaluation of the distance education system.

It should be noted here that each major step in the STOU master model has a system model of its own. In this study, only the multi-media production system of STOU will be examined and discussed.

A model for the multi-media production system at STOU

The multi-media production process is the step which comes after the curriculum development. After a new curriculum or a new programme of study is officially approved, the responsible department can start its work in producing the multi-media distance learning packages for a certain course. This process normally takes one year to be completed. In addition, STOU textbooks are revised every four years. When a course needs to

be revised, a new course team (with or without some members from the previous team) is appointed. It is possible that some units in the textbooks do not need to be changed. However, the norm is that many of them do need to be up-dated.

The structure of the STOU curriculum is based on the principle of course integration which is primarily of an inter-disciplinary approach. To provide an integrated study of interrelated subjects, the curriculum is divided into 'course blocks'. Each block contains six semester credits.

The course blocks enable students to concentrate on special content areas rather than diffuse their study efforts. The course block system is considered helpful in the following ways :

1. It facilitates academic integration.
 2. It facilitate self-study.
 3. It improves the oversight of academic quality and standards.
 4. It facilitates the use of supplementary media in systems based primarily on printed materials.
- (Srisa-an, 1986 : 17)

To provide self-instructional texts, more than 4,000 specially qualified individuals from the Thai academic community were invited to serve as course writers. STOU course writers are also appointed from academic staff from various schools within STOU. These people work together as a course team to produce multi-media packages. The STOU course team consists of course writers both from inside and outside the University (as many as needed), an educational technologist, a test specialist from the Office

of Registration, Records & Evaluation, an editor and a course team secretary.

With regard to media, there are three offices in STOU that are responsible for its production system, namely the Office of Academic Affairs, the Office of Educational Technology and the Office of the University Press. The functions of each office can be summarized as follows :

OFFICE OF ACADEMIC AFFAIRS

- preparing manuscripts for course teams
- providing training for outside writers
- organizing workshops for course writers

OFFICE OF EDUCATIONAL TECHNOLOGY

- producing radio programmes
- producing television programmes
- preparing films, audiotapes and videotapes

OFFICE OF THE UNIVERSITY PRESS

- printing textbooks and workbooks
- printing examination papers

At its first implementation, the STOU production infrastructure was very limited. Textbooks were printed by commercial printers. Radio programmes were produced at a commercial sound studio until STOU's own studios were set up by the staff of the Office of Educational Technology. Television programmes were produced on simple low band U-matic units. In terms of personnel, there were fewer than 20 production and technical staff to produce all types

of media in the Office of Educational Technology during the first few years.

Nowadays, 50 per cent of printed materials are printed by STOU's University Press. The rest are printed by a commercial publishing company. All radio and television programmes are produced at the Educational Broadcasting Production Centre (EBPC) of STOU, located at STOU headquarters. Being well equipped, EBPC is considered one of the best educational production centres in South-East Asia. Thanks to its capacity, approximately 10,000 radio and 2,000 television programmes can be produced per year. In the area of broadcasting production, there are 40 educational technologists with academic status, 40 media producers, 100 technical staff, and more than 40 administrative staff working for the Office of Educational Technology.

Each year, the need for printed and audio-visual materials has increased owing to STOU's growth. Because of higher numbers of courses offered in the various schools, the period of one year preparation and production of multi-media packages seemed to be inadequate. In anticipation of this work-load, some schools have had to appoint the course team about two years prior to the deadline for offering the courses. For some courses it takes more than four years before the course is revised.

Apart from the production work for STOU, the Office of Educational Technology also provides a service to the general public. The Office also has to produce the programmes for

Educational and Professional Counselling Services. The 'Educational Guidance' for radio programmes are broadcast twice weekly on Saturday and Sunday. The 'Educational Guidance' for television programmes is broadcast once a month.

The work-load leads to there being insufficient time for educational technologists and producers to produce high quality programmes. Another major problem that STOU is facing now is that more and more of the well qualified media production personnel are leaving the University for better-paid jobs in commercial or cable television. This is due to low government pay at STOU. Even though STOU can always recruit new personnel, it takes time and money to train them. In addition, they can quit to get higher pay at any time. The STOU production centre sometimes appears just like a training place for them.

Another issue facing STOU is funding. Though STOU is a state-owned university, it relies financially on its own revenue. This is possible because its University Press and the Educational Broadcasting Production Centre (EBPC) can produce learning materials in a highly economic way. Besides, both of them can make a profit by providing services for other institutions and organizations. Thanks to its seminar centre, training centre and lecture theatre, STOU can get income from renting rooms and facilities provided for seminars, conferences etc.

Even though STOU has regular revenue from its facilities and services, a lot of money has to be spent in turn to maintain

those facilities. Some STOU production facilities need replacing with new ones or better models. Since EBPC was established by a grant from the Japanese government, all equipment came from Japan. Therefore, when something needs to be fixed or replaced, a lot of money has to be spent on new Japanese equipment and expertise. This poses a big financial problem for STOU.

The media production steps at STOU

The production steps are considered as a sub-system under the STOU Plan for multi-media production. Basically, this sub-system consists of planning and preparation of both printed materials and supplementary media. The course planning and preparation steps are the responsibility of the course team. There are nine steps in multi-media production at STOU.

STEP 1 : ANALYZE / REVIEW CONTENT AND UNITS

The course team has to review the content of the course to be produced together with the sub-units which are described in the curriculum. The course team can re-analyze the course content, delete or add parts to ensure that they are correct, up-dated and in accordance with course objectives. However, any change needs to be ratified by School Boards and the Academic Senate.

STEP 2 : IDENTIFY TEACHING UNITS

After the course content is analyzed and reviewed, the final 15 teaching units are identified carefully by the course team. The factors that should be considered together at this stage are the learning ability of the target group and the amount of study-time

expected from the students. Then the course team proposes academic writers for each unit. The team submits the final list of teaching units and the list of proposed course writers to the Academic Senate for their approval. When these get approved, course writers are officially appointed as joint members of the course team.

STEP 3 : PLAN THE LESSON

Each writer is requested at this step to submit the plan for the presentation of the unit he or she is responsible for. In planning the lesson, there are basically six sub-steps to be completed. They are as follows :

1. Identify the titles and topics of the unit. This involves breaking down the whole unit into small parts.

2. Write statements of concepts and principles. Each statement has to be in accordance with its topic. One topic must have at least one statement. These statements usually contain essential points in the form of key words to be elaborated in print and in various types of media.

3. Write behavioral objectives for each topic as shown in the statement(s) of concepts. The objectives vary depending on the course content. The objectives may put different emphasis on recalling, comprehension, applications, analysis, synthesis, and / or evaluation.

4. Identify learning activities to be performed by students. This is to analyze students' learning behaviour. In each section of the unit, there are activities which students are recommended to do in the workbook. There is also a pre-test and a post-test

for each unit. The tests are accompanied by answer keys to provide students with feedback. The students are encouraged to exploit radio and television programmes and to attend tutorial sessions at nearby regional centres though they are not compulsory. In some courses students have to hand in assignments either in the form of computer-marked assignments or special reports.

5. Select and identify appropriate media to supplement printed materials. This step is done with the help of an educational technologist. The idea is simply to identify in detail any kind of material the students need to employ during the course. In general, the materials include textbooks and workbooks, cassette tapes accompanying the course, recommended books (if any), radio and television programmes, audio-visual materials provided at regional centres, pre-test and post-test, unit test, and tutorial media.

6. Identify the modes of assessment based on behavioral objectives. This is conducted with the help of a test specialist.

STEP 4 : PREPARE LEARNING ACTIVITIES

Types of activities that students are expected to perform are outlined by the course team. There are two types of activities undertaken by STOU students, namely learning activities and extra activities. Learning activities are those that involve work undertaken for regular lessons. Extra activities refer to any activity outside the regular study time. These include a) observing certain activities in the community, b) field trips,

c) conducting experiments in laboratories of local institutions or home experiment kits, d) joining seminars and workshops, and e) attending professional enrichment programmes organized by the University. For these extra activities, students are expected to submit special reports.

STEP 5 : PRODUCE MULTI-MEDIA PACKAGES

Two groups of course team members carry out the production of various components of STOU multi-media packages. They are content specialists and educational technologists. Content specialists are responsible for the course units. In order to assure the unity of writing presentation and format, each writer has to follow the guidelines set out in the 'Manual on Writing Distance Learning Texts' provided by the Office Of Educational Services. There is also a workshop organized for all internal and external writers. The workshop, namely 'Techniques of Writing Distance Learning Packages' is to provide practical experience to those course writers.

The outline of the content of the audio-visual materials and broadcasting programmes needs to be written down by the course writers. An educational technologist is responsible for preparing transcripts for radio and television production. Before the programmes are produced, content specialists check the transcripts for their accuracy. Finally, the completed programmes have to be approved also by the course team.

Most STOU programmes require at least one presenter. To be an announcer for STOU radio and television programmes, one must get approved by the Radio and Television Administrative Board. The Board controls and supervises all aspects of radio and television programmes relating to legal, technical, and administrative aspects. However, STOU programmes do not need to be examined by the Board because they serve the public as a means of education.

After being broadcast, the master programmes are kept at the EBPC. One month later, every programme that has already been broadcast is copied and sent to STOU library at its headquarters and other centres in the larger provinces of the country for the use of students. When necessary, these programmes could be revised.

Apart from broadcasting programmes, cassette tapes play an important role in STOU. The tapes are produced for the courses whose content is difficult to understand. The style of presentation for cassette tapes is more limited than those of broadcast programmes. The content is usually presented in the form of a lecture, discussion or conversation by one or more of the course writers.

In some courses video tapes are produced as support media to clarify the special content of the courses. Video tapes are usually shown to students in the tutorial sessions. They are also produced for the courses that have no tutorial session.

In the Office of Educational Technology, the 'Centre for Educational Radio and Television' is responsible for broadcasting programmes. The 'Production Centre For Educational Film and Video' is responsible for video and film production. 'Audio-visual Production' is responsible for producing any supplementary materials needed for textbooks, broadcast programmes, and tutorial sections, such as pictures, slides, film strips, and so on.

STEP 6 : CONSTRUCT TEST ITEMS FOR EVALUATION

The evaluation of students' learning is carried out by the academic and the test specialists from the Office of Registration, Records & Evaluation. The evaluation is based on the behavioral objectives stated in the lesson plans of each course. There are two types of evaluation in STOU. They are 1) 'evaluation of the process' which is an evaluation of the students' assignments and extra activities 2) 'evaluation of product' which is the end evaluation based on previous tests and the final examination. It should be noted here, however, that in practice assignments are rarely found in any of STOU courses.

STEP 7 : COMBINE MULTI-MEDIA COMPONENTS INTO DISTANCE LEARNING PACKAGES

This step needs to be done after the programmes are produced to make sure that they are all well integrated.

STEP 8 : CONDUCT DEVELOPMENTAL TESTING OF PACKAGES

Developmental testing assures the quality of the final multi-media packages. There are two stages in developmental testing as follows :

1. The try-out (test) stage. The media packages are tested with representative samples of STOU students. This is to determine the efficiency of each medium. The media are then revised and improved in accordance with the outcome.

2. The trial run stage. After the materials have been revised, they are used in a specific period of time which could be one semester or one year. The information resulting from this stage is used to further revise and improve the materials before they are made ready for mass production.

STEP 9 : DISSEMINATE MULTI-MEDIA PACKAGES

The final multi-media package is disseminated by the responsible offices in STOU. The Office of Educational Services is responsible for delivering the print media and accompanying audio-visual materials to students via the mail. It also organizes tutorial sessions at study centres throughout the country. At this step, textbooks together with other types of related information and documentation are distributed to various study centres and provincial libraries for students' use.

STEP 10 : EVALUATE MEDIA SYSTEM

The evaluation of the STOU distance education media system is conducted regularly by the Office of Educational Technology's Systems Design and Media Research Division and the various

schools through a 'Course Evaluation Committee'. The Committee is appointed by the STOU Academic Senate to evaluate print and supplementary media.

5. Differences in OU and STOU course design process

Looking at the administrative structure of the OU and STOU, one can see that the system of both universities is organized more or less in the same way. Both OU and STOU have to produce educational materials to serve a large number of students. Print is the core medium in both STOU and OU. It is generally supplemented by audio-visual materials, radio and television programmes, tutorials, and extra workshops.

Generally, print and broadcasting remain the key components in distance education because they are accessible to all students. In Thailand, print is selected as the core medium because the literacy rate in the country is estimated at 86 per cent (Chaya-Ngam, 1987). Print can reach a large number of people. Radio appears to play a more important role than television in STOU because its coverage extends to most of the country and ownership of personal radios is more widespread than televisions. This is the reason why just three television, but as many as 10 radio programmes are allocated to one STOU course.

The allocation found in STOU is called standard allocation. Irrespective of the nature of the course content, it is a convenient approach to fill the time slots obtained with exact numbers of broadcast programmes for each course. Nevertheless,

this standard allocation is opposed to the conventional belief in the area of instructional media which states that media selection should always begin with the objectives of learning (Gagne and Briggs, 1979; Reigeluth, 1983; Romiszowski, 1992; Rowntree, 1994).

The OU, on the other hand, has its own criteria for media allocation considering its suitability for the nature of course content. In the OU, the course team chairman and producer(s) responsible for the course have to bid for broadcasting resources. The Broadcast Allocation Sub-Committee (known as Broadcast Sub-Committee) is assigned in order to evaluate the suitability of the bids. Principally, the point of the broadcast bid is to present how the broadcasting element required is an integral and crucial part of the course. The course team chairman and the producer have to be able to discuss the bid with the committee particularly in terms of objectives and necessity of broadcasts (see also chapter 7).

In order to propose the broadcast bid, course objectives must be well analyzed in order to achieve the best match between media used and the course objectives. Integration and role of broadcasts must be well planned and clarified.

Apart from resource allocation, media production systems in OU and STOU share many things. There are special production units that take full responsibility for media production. In OU, the Director of Operations is responsible for the direction and co-

ordination of all University publishing, design, production and distribution services. Whilst the BBC takes care of broadcasting production for all OU courses, the Institute of Educational Technology has been involved in media research and development in OU. At STOU, the Office of the University Press is responsible for STOU publishing services and distribution. The Office of Educational Technology is responsible for the production of STOU radio and television programmes, film, video, and other audio-visual materials. The Management Systems & Educational Media Research Section at STOU is involved in conducting media evaluation and research.

In terms of media personnel, both OU and STOU recruit qualified people specially for the area of media production. BBC producers are based at OU headquarters, working full-time in production. STOU also has full-time staff working in the Office of Educational Technology. Among them, there are quite a large number of educational technologists whose background is directly in the area of educational technology. Chapter 5 examines how educational background affects the ways they produce the programmes.

In terms of OU and STOU textbooks, the format and many of the principles behind have been adopted from 'programmed learning'. This makes them special and easily recognizable. Both OU and STOU have gained credibility from the academic community in their own countries partly because of their course units. Firstly, OU and STOU have been successfully in establishing good cooperation

among academic institutions. Secondly, a large number of qualified academics or experts have been invited to be course writers. This means that OU and STOU textbooks are highly thought of and academically accepted. Those textbooks are used by many conventional institutions.

The course team approach has been employed for course production both in OU and STOU. The overall structure of OU and STOU course teams is almost the same. There are two groups of people who are most important in the course team : academics (content specialists or writers), and producers. The difference in the structure of the OU course team and STOU course team lies in the numbers of people appointed to join the team. In a STOU course team, there is a testing specialist as a member. This is not at all necessary in OU course teams. Nevertheless, an OU course team appears to be bigger than STOU's. STOU does not appoint a graphic designer, media librarian, staff tutor, academic consultants and an external assessor to join a course team in the same way that OU does.

The graphic designer and media librarian are not appointed into STOU course teams because it is the responsibility of the course editor and producer to arrange all the materials needed for the course. The course tutors are appointed after the course is completely finished.

STOU course teams also lack consultants and an external assessor. In OU course teams, consultants are appointed as special members

to give comments in respect of the units or blocks with which they are concerned. They can be asked to undertake a broadcast or the preparation of a part of correspondence texts. The external assessor is the one who has to check and approve the final draft of the course content submitted by the course team.

A problem that appears to exist both in OU and STOU course teams is the work-load (see chapter 5). In STOU, this directly affects the quality of multi-media materials. It has been suggested that academics and producers should work together closely in order to optimize the level of media integration. In practice things are different. The producers are the ones who design the style and format of broadcast programmes. They write the broadcast scripts. When finished, the scripts may or may not be checked by the academics in the course team. This is dependent on the time available. The completed broadcast programmes are, however, to be viewed by the course team to get their approval. Again, this is the way it is supposed to be. Normally, there is not enough time for that. Moreover, if the course team does not agree with the way broadcasts have been produced, it is by that time to change anything.

Even though OU and STOU textbooks are similar in nature, their accompanying materials are different. OU textbooks are accompanied by various booklets to facilitate learning (see also chapter 6). Broadcast notes have normally been used in every course that is supplemented by broadcast programmes. The notes are to be used as a guideline in order for students to optimize

the broadcast programmes. Accompanying booklets and broadcast notes are not used in any STOU course.

In STOU, students are assessed using examinations only. Unlike STOU, the OU divides assessment equally between continuous assessment and examination. There are two forms of continuous assessment in OU : tutor-marked assignments and computer-marked assignments. Both of them are graded. Consequently, they can reduce the work-load on students at examination time. Another advantage of continuous assessment is that tutors can give direct feedback to students through their comments especially in tutor-marked assignments. Besides, tutor-marked assignments have been proved to be a good method to promote skill in learning (see also chapter 6).

In conclusion, this chapter examines very briefly the system of OU and STOU to give an overall picture before more details about each system are revealed in the next two chapters. Differences in the media production process in OU and STOU are pointed out again in chapter 5, not through an outsider's eyes but through the opinions and experiences of people directly involved in the systems.

CHAPTER 5
QUESTIONNAIRE SURVEY I
INTEGRATED MULTI-MEDIA SYSTEMS OF OU AND STOU : SOME
REFLECTIONS FROM BBC/OU AND STOU PRODUCERS

1. The Study

Purpose of the study

Many countries in Asia, including Thailand, have established higher education institutions of distance teaching and learning by adopting the system of the OU. STOU was created in 1978 based on a modification of this system and designated by UNESCO as the lead institution for distance education in Asia and the Pacific. In 1987, 10 years after its establishment, Lord Perry Walton, the first Vice-Chancellor of the OU, paid a visit to STOU and cited it as an excellent example of the rapid development of distance education institutions in developing countries (Never too far, 1987 : 1).

This study, working from a comparative base, will examine the integrated multi-media structure of the OU and STOU in the 90s with respect to the integration of print, radio and television. The study aims to look at the differences between the systems and assess their strengths and weaknesses. One of the main reasons for conducting comparative research is to better understand ourselves through the recognition of differences and similarities across a wide range of societies. In this way, valuable lessons can be learned, particularly by drawing comparisons with the OU, as the original institution employing distance education.

Method of data collection

In terms of methodology, there is a great variety of methods of data collection available to researchers. The researcher has to decide which method is better for a particular problem at a particular time when resources are limited.

Along with library research, a wide range of documents both from STOU and the OU are examined. All internal papers from the OU regarding broadcasting and broadcasting surveys since the beginning of the University are analyzed in the study. In making comparisons, the historical context must be taken into account. Questionnaires, interviews and case studies are also included. Additionally, the author's attendance on the course "Distance Learning : Designing Systems and Materials", organized by the Institute of Educational Technology of the OU during September 12th - October 7th 1994 also proved advantageous for the study.

Scope and limitation of the study

One aim of the research is to examine the production process of OU and STOU. To fully understand differences and similarities of the process, information from and attitudes of the producers in both Universities need to be considered. For this specific purpose, questionnaires and interviews were employed. The questionnaires were distributed to all STOU educational technologists (who were also working as producers) and all BBC/OU producers. Questionnaires and interviews were conducted directly with OU/BBC producers without the need to apply for official approval. In STOU, however, permission for conducting a

questionnaire study and interviews had to be officially given by the STOU Rector. All the questions being used in the interviews with personnel staff in STOU were required to be seen by the Rector beforehand. The author was not asked to make any changes. As a member of STOU, the author can easily get access to key figures and necessary information. It should be noted here also that the author did not have to submit any report regarding the results of the study for the approval of STOU.

The questionnaire

The same questionnaire, in Thai and English, was used in surveys in both Thailand and the United Kingdom. Before conducting the questionnaire survey, the initial preparatory work took two forms. Firstly, existing literature was scanned for relevant information in order to narrow down the areas for questioning. Secondly, the views of educational technologists and producers was sought.

The questionnaire was divided into two sections : a factual section and an attitudinal section. Question types were of the closed and open variety. The closed questions aimed to elicit personal data as well as the working pattern of each individual. Unlike the closed questions, the open questions allowed the respondents to express more of their personal attitudes towards the system and their working experiences. As stated, the chief advantage of the open questions is the freedom it gives to the respondents. They can be best used as a replacement for interviews when it is difficult to conduct direct interviews.

From the open questions, a lot of relatively straightforward information can be obtained. The respondents can express their ideas spontaneously and freely in their own words. This spontaneity was useful in providing a source of new information. If an answer was ambiguous, the respondent would be asked to explain the answer in the interview.

Thirty questionnaires were sent to all STOU educational technologists (referred to as STOU producers hereafter). All of them were returned. In OU, thirty-four questionnaires were distributed to all BBC/OU producers (according to the list of BBC/OU producers from October 1994). Out of thirty-four, thirteen questionnaires (38.2%) were returned. The low response rates from OU were presumably due to the producers' busy production schedule. Unlike STOU producers who spend most of their working time in the University, BBC/OU producers are required by filming schedules to spend the considerable amounts of time away from base.

Conventionally, questionnaires are sometimes considered wanting on the basis of poor response rates. Low return rates are also presumed to suggest a bias in the data. Nevertheless, it could be argued that when a survey is made of a homogeneous group of people concerning their attitudes, opinions and perspectives, a significant response bias is unlikely. It is likely that respondents having strong identification with the group tend to respond more as members of the group than as members of some social classification. In this case, the respondents from OU are

homogeneous with respect to their identity as BBC/OU producers. When they were asked about their working experiences or their attitudes towards their career, this identity was obviously dominant over their other personal characteristics. It was apparent from the survey that producers at the OU have a very strong identity as members of staff of the BBC. Initially, the questionnaires were addressed generally to them as 'OU Staff Member' but following a request this heading was changed to 'BBC/OU Producers'. As one of them observed, "We work and are the staff of the BBC, not the OU" (Interview, October 1994).

The interviews

The interview was of a semi-structured, conversational nature with some broad questions to provide an overview of the integrated multi-media production system and its planning process. All the interviews which ranged from 1/2 hour to an hour were tape recorded with the permission of interviewees.

The semi-structured interview is appropriate for ascertaining an individual's own definition of the situation. Being guided by a list of questions in major areas, the semi-structured interviews allowed flexibility in questioning. In addition, it also allowed unanticipated responses in order to get any deeper information required.

2. Data from questionnaires and interviews

About questionnaire respondents

Of the 31 questionnaires returned from STOU, 17 respondents were male and 14 were female. Most of the respondents started working at STOU in 1981; a year after its first enrolments. There were 3 respondents who had been working at STOU since the first year of enrolment. Most STOU educational technologists (or producers) were recruited during 1981-1985. It was also the time that the number of schools taught in STOU were increased from three to ten. From 1986 until now, there were only 3 educational technologists recruited. This means that in the Office of Educational Technology at STOU, there has been little change in staff positions. Almost all of the educational technologists have been working there for at least ten years and these people now possess a lot of experience in producing programmes for STOU. On the other hand, STOU lacks newly recruited producers who would introduce new ideas or concepts about programme production. As stated by the former Head of the Office Of Educational Technology at STOU : "The production work of STOU producers is considered as routine work; creativity or new ideas have hardly been introduced into the programme" (Interview, 1994).

By contrast at the OU, the respondents started working at the BBC/OU production centre at different times. Two respondents started to work at the BBC/OU at the end of the 60s (1968, 1969). Four of them started their work in 1970, 1977, 1978 and 1979 and four in the late 1980s (two in 1987 and two in 1989). The two most recently recruited BBC/OU producers who returned the

questionnaires just started to work in 1993 and 1994. This difference indicates the movement and circulation of production ideas in the BBC. Accordingly in the report of the BBC's educational role in the new broadcasting age, it has been stated that the BBC will 'apply the very best BBC programme making skills and commission the best independent programme makers to provide schools and Open University programmes' (BBC, 1992 : 36). Apart from that, the respondents all work for different academic areas in the Open University Production Centre (OUPC). In the OUPC, producers work in different sections according to their specialized academic areas. The sections are namely, Maths, Arts, Education, Social Science, Science, and Technology. Four respondents are producers working in Maths, two producers work for Arts, two work for Education, and the rest work for Social Science, Science, and Technology. Therefore, OUPC differentiation has allowed producers to specialize in different academic fields.

Issues regarding educational qualifications and training experience

The educational qualifications of the producers are an important factor affecting the quality of a programme; especially when the programme is for educational purposes. There was a significant difference between educational qualifications of BBC/OU producers and STOU producers. It is essential to look at the qualifications of BBC/OU producers and STOU producers separately. The majority of STOU producers (93.5%) gained an MA either in the field of Educational Technology or Audio-Visual Material in

Education. These two subjects are offered by two of the conventional universities in Bangkok. Two of the remaining producers earned MAs in Communications. The first degrees of STOU producers were more varied comprising Social Science (6), Communication (2), English (2), Thai (2), Biology (2), Psychology (1), Physics (1), Journalism (1), Liberal Arts (1), and Education (1). Eleven of the respondents also got their first degrees in either Audio-Visual Material for Education or Educational Technology.

BBC/OU producers were likely to have come from a wide variety of educational backgrounds, with different levels of qualifications. From the questionnaires returned, six of them gained a Bachelor's degree either in Arts or Sciences. Four producers gained MSc. The highest was PhD in physics and DPhil earned by three of the respondents. One respondent did not give details about his qualification.

The difference between the educational qualifications of STOU and BBC/OU producers indicates differences in recruitment policy of these two institutions. In STOU, to be an educational technologist or producer, one is required to hold at least a Master's degree in Educational Technology or a related field, without any requirement for a Bachelor's degree. In the OU, all the producers were recruited by the BBC. Walter Perry; the first Vice-Chancellor of the OU revealed that "The BBC was very much further ahead than was the University with the planning and preparation of their side of the educational partnership. They

had a clear idea of their recruitment policy and of what the timescale had to be" (Perry, 1976 : 48). The recruitment policy of the BBC for the OU was the same policy that they used for other sections in the organization. The BBC normally tends to recruit graduates straight from well-known universities. As stated, BBC television has been the first choice of a quite disproportionate number of the nation's best qualified graduates (Jay, 1972). In the case of OU, the BBC had recruited the BBC/OU producers with qualifications in the academic areas required by the University. Some of them were of very high academic quality because they had the qualifications required by both the OU and BBC/OU and actually applied for both jobs. Some producers had been transferred from the BBC headquarters. With little or no technical knowledge of radio/ television production, the newly recruited BBC/OU staff were trained by experienced producers from the BBC's general educational service. This was confirmed by the questionnaire result that all of the BBC/OU producers attended 3-4 week long radio/television workshops organized by BBC. STOU once sent its personnel staff to OUPC for a production training workshop. Unfortunately, the system at the STOU had not appeared to have changed. Associate Prof. Vijit Pakdirat; the former director of the Office of Educational Technology revealed that: "We sent some educational technologists and a few lecturers to OU to learn about its multi-media production system. But it seems that nothing much was improved. If we really want to improve our programme, the recruitment policy with regard to producers needs to be revised" (Interview, August 1994).

Most STOU producers had attended more than one radio/television training workshop organized by STOU normally for a period of one week. Apart from the STOU workshops, production workshops were provided twice by organizations in Australia, and once by German, Singaporean, and Dutch organizations. Four senior producers attended those workshops which were organized abroad for approximately 3-6 months. Most of the overseas training workshops, however, were provided by the Japanese government. Five STOU producers were sent to Japan for training over the period 1981-1985 for 2-3 months at most. Two of them were also there in 1992 also for 2-3 months. It is interesting to note here that producers who had the opportunity to attend training courses overseas were likely to be senior producers who had been working in STOU for a longer period of time. It is fair to say, being sent overseas for the training was seen as a career reward for them.

The former head of the Section of System Management and Educational Media, Office of Educational Technology at STOU commented on training. She revealed that one of the problems concerning the area of production was the lack of training courses or workshops provided for STOU educational technologists; particularly at lower levels (Interview, May 1994). In response to an open question on the main difficulties faced when producing programmes for STOU, two of the respondents agreed that STOU did not provide enough training in the field of production. For them the training was necessary because according to one respondent, "In general, STOU producers have a narrow attitude towards

programme production due to their academic background in the area of education. I believe that training would give them wider professional knowledge about this matter" (STOU ET 8). Similarly, another respondent claimed that "STOU producers need to be trained by professionals. What they are producing now are not educational programmes in their true sense" (STOU ET 1).

In addition, 48.4% (15 out of 31) of STOU producers had at least once obtained training regarding distance education; compared with 30.8% (4 out of 11) of BBC/OU producers.

Skills and knowledge for programme production

The difference in education backgrounds of producers in OU and STOU directly affects the quality of programmes they produced. One clue emerged from the open-ended question on the subject of the greatest difficulty they face when they write the scripts for OU/STOU programmes. Almost half of all STOU producers (48%) claimed that they did not understand course content well enough to convert it into scripts. Another 48% of them said that they did not have enough information to produce scripts since the content of the course had not been finished on time. The remaining four per cent thought that time limitation was the biggest problem for them to produce the scripts. This also implies that STOU relies heavily on textbooks in order to write the scripts. The evidence emerges from the questionnaires. More than half (18 out of 31) of STOU producers revealed that they normally used textbooks as a source of information for the scripts. On the other hand, most of BBC/OU producers tended to

talk to course writers or experts in a particular field to collect information for the programmes.

Most STOU producers thought that they did not have enough knowledge to produce programmes for the University. This was particularly affected by their lack of qualifications or background knowledge in the area that they were assigned to produce the programme for. Associate Prof. Vijit Pakdirat; the former Director of the Office of Educational Technology admitted that STOU made a mistake in recruiting its producers whose educational background was all in Educational Technology or related areas. "STOU producers do not have professional skills in production. Most of them graduated from the Department of Education. So, their style of production is too factual and not interesting or creative enough (Interview, July 1994).

In the view of BBC/OU producers, 15.4% (2 out of 13) of them said that the greatest difficulty was that the course material had not been finished on schedule. Other difficulties stated by two BBC/OU producers were limitation in time of production and availability of academics. The rest of the BBC/OU respondents were concerned more about the balance between content message and pictures. This indicated that BBC/OU producers tended to talk of the programme in terms of quality particularly in technical terms. One BBC/OU producer revealed that "It is difficult to convert an academic idea into a radio/television programme. The type of material suitable for an essay, article or book doesn't necessarily makes good television or radio" (BBC/OU 2). Three

producers also found that it was difficult to fit the academic content of an OU course into a programme; especially abstract subjects with vague ideas and long content which may not be suitable for radio or television.

A major factor affecting the quality of programmes is not only the background knowledge of the producers about that particular subject, but also the way producers are assigned to produce the programme. In the OU, producers are assigned to programmes in the area of their expertise. In OUPC, in order to differentiate each producer's expertise, there are 6 faculty areas namely Education, Social Science, Science, Technology, Arts, and Maths. In Education, Social Science, Science, and Technology, there are 5 producers for each faculty. In Arts and Maths, there are 7 producers working for each. This means that BBC/OU producers are producing only programmes in accordance with their own expertise. Moreover, in each of the faculty areas, one of the most experienced producers in the field is appointed as senior producer.

It is clear that BBC/OU are required to have good knowledge of the subjects to be produced. One of the producers said that "We do not have to be experts on the subject, but we have to have a pretty good working knowledge about it. I think it's fair to say that by the time you finish working on the programme, you are a good expert in a very, very narrow part of that subject" (Interview, October 1994). Another pointer to this was the response from another BBC/OU producer about the method he used

in writing the scripts. He pointed out that, apart from textbooks and reference material, he applied his formal knowledge and experience to develop a script.

In comparison, STOU producers normally got assigned to produce programmes related to areas that they were usually not familiar with. This caused a great many problems for them. For instance, one producer who graduated in the field of Physics was most of the time assigned to produce programmes in the area of Social Science; and another who graduated in Educational Technology was regularly assigned to produce Science programmes. These few, but significant examples indicate that STOU had no academic criteria in allocating work to its producers. One STOU producer said that "STOU should allow its producers to work on the area that they are most familiar with in accordance with their background. But this is impossible in reality since there are 10 Schools, with hundreds of different subjects offered by the University. We do not have enough producers to cover those subjects" (Interview, May 1994). It is true that STOU does not have enough producers whose educational background would cover all the courses offered by the University. However, if a producer is always assigned to work on the same subject area, he will naturally get used to that particular subject and could develop expertise in this area as well. However, twelve of them (38.7%) revealed that they were assigned to work on a wide range of subject areas, not committing themselves to particular subjects. As noted, the more the target audience differs from the circle of producers' personal experience, the greater the risk that programmes will fail to

meet audience needs (Bates, 1984a: 198). It is undeniably true that the quality of BBC/OU producers in terms of their professional and academic background is a major factor in developing a really integrated approach to the media.

Relationship between academics and producers

Perhaps the most common conflict between academics and producers, or in other terms, educators and broadcasters is caused by the difference in terminology they use to justify educational programmes. Wilbur Schramm notes that most educational broadcasters tend to talk of a good programme in terms of quality; most educators, in terms of effectiveness (Schramm, 1977). This 'professional quality' and 'academic effectiveness' are basically two different philosophies. The conflict between the two was also observed by Walter Perry; the first Vice-Chancellor of the Open University. In his own words, "There were considerable doubts on both sides as to just how this partnership would work out in practice. The University thus feared that the BBC might exert too great an influence on the shape of programmes. On the other hand, the BBC found that the University would insist on what would turn out to be bad television" (Perry, 1976 :82). His reflection still holds good today. Two BBC/OU producers made the following observations on course teams: "Course team members are in the group for themselves, for their own advancement and not for working together. We used to be much more active in the course teams but now have a feeling of tremendous waste of time. Compared to the early days there seems to have been a loss of trust between

course teams and the BBC. The old problems keep appearing with no sense of improvement" (Nicodemus, 1992a : 11).

The results of the questionnaires appear to confirm this fact. When asked about the main difficulties in producing programmes for the OU, six producers (46.1%) found that the biggest difficulty was how to deal with academics. This was borne out in their comments. Some complained about the availability of the course team. One claimed that there was too much pressure on the course team. The majority of respondents who mentioned the difficulties dealing with course teams commented on the lack of interest of academics in broadcasts. The comments were as follows: 'Occasionally, academics lack media knowledge' (BBC/OU 4). 'Academics should be aware that this is not a hobby; it needs time and effort' (BBC/OU 8). 'Course unit authors spend too little time on radio/television broadcasting material and too much time writing' (BBC/OU) and 'Course unit authors do not take account of media strengths and weaknesses in selecting content' (BBC/OU 10). Accordingly, one senior producer commented on the same point that "Academics don't think we know how to make the best programme. We don't trust them to help us. The relationship has worsened" (Ibid).

The conflict between academics and producers was shown not only in OU but also in STOU. In response to the open question about the difficulty in producing programmes for STOU, eighteen of them (58.1%) pointed out their difficulty working with academics. The conflict mentioned in their answers could be separated into two

aspects. Firstly, most of these 18 producers claimed that they did not get enough co-operation from academics both from within and outside the University. The second aspect mentioned by 9.6% of the producers was that STOU course teams did not have enough media knowledge.

STOU producers have to work co-operatively not only with academics from the University, but with academics from outside. These academics are normally experts in certain fields who are invited to be course writers. They are occasionally invited to participate in the programme. The fact that STOU producers could not get good co-operation with outside academics probably results from two factors. One could be that they were not paid well by STOU to work as programme participants. A second factor could be that the reputation of STOU programmes was not so high as to be attractive to potential participants. Apart from that, most of these invited academics work for conventional universities which have a different teaching method and educational philosophy from STOU. It has been claimed that STOU has been able to achieve respectability partly because two-thirds of the academics engaged in its activities are invited academics from outside. They have served as planners, curriculum developers, part-time course team members, and tutors at supplementary instructional sessions. Even though all of them are qualified academics, it is most likely that they do not fully understand the teaching system of STOU. Moreover, they have to give primary loyalty to the institutions that employ them full-time. They might not primarily be concerned with the welfare of STOU.

In the OU, according to the original idea of the OU Planning Committee, academics from other universities are invited mainly to be consultants for the OU courses. In some instances, external consultants are invited to write some course units or undertake some radio/television programmes. As Perry; the first Vice-Chancellor of OU pointed out : "The fact that the academics creating our courses are full-time members of the staff of the institutions seems to me to be all-important. Our success in creating courses, in other words, seems to stem from the fact that those who joined the Open University staff put their whole careers at risk" (Perry, 1976 : 92).

Theoretically, producers are supposed to work closely with the course team mainly for the reason of integration. The duties of producer and academic in the course team were well defined by Ferguson; the former Dean and Directors of Faculty of Arts - OU. "The academics had been expecting to work entirely with experienced producers, and had a fairly crude model in mind by which the academics would explain what the programme was meant to convey, and the producers would then show how to translate the programmes into something technically competent" (Ferguson, 1975 : 50). It was once revealed that it would be difficult for any observer attending an OU course team meeting to decide which were the faculty members and which were BBC producers because of their equal contribution to course content and broadcast (Interview, Oct 1994). This comment was made at the very beginning of the OU. Presently, the system works quite differently. One BBC/OU producer said that "It would not be cost-effective for us to go

to every course team meeting. Most of the time, they discuss texts. We just waste our time if we go to every course team meeting. We sometimes just go to the meetings that discuss our particular programmes" (Interview, Oct 1994). Similarly in STOU, one respondent from STOU stated that : "There is no such thing as team work between academics and producers at all in reality" (STOU ET 15).

However, if working as a team member means attending course team meetings, team work between academics and producers appeared to function more effectively in STOU than in OU. The majority of STOU producers, normally (80.6%) attended more than half of their course team meetings. The remainder (19.4%), attended every meetings. None of the BBC/OU respondents (50.3%) attended every meeting but most of them normally attended more than half of their course team meetings. The remaining 49.7% of them normally attended less than half of the meetings. Nevertheless, all of BBC/OU respondents and most of STOU producers (93.5%) indicated that they made decisions about the programme content in consultation with the course team. Only one STOU producer claimed that all the decisions about programme content was made by him. Another producer said that the course team made all decisions about the programme.

In contrast to this were the answers to the question regarding the approval of the course team on scripts of the programme. As seen before, the majority of STOU producers tended to attend course team meetings almost every time. However, only 35% of

STOU producers showed the scripts to get approval from the course team every time they finished writing them. This was very different to BBC/OU producers. Most of the BBC/OU respondents (69.2%) showed completed scripts to the course team every time. The rest of BBC/OU respondents showed completed scripts to the course team sometimes because they normally showed the scripts to the academic consultant who was assigned directly to be responsible for broadcasts. Of the STOU producers, 25.8% sometimes showed the completed scripts to the course team, and 38.7% never showed the scripts to their course teams for approval. Most of the reasons specified for not showing completed scripts to the course teams were ones to do with lack of time. Some indicated that the programme outline was already discussed in the course team, so it was not necessary to discuss the scripts again.

It appears that academics and producers in the course teams work together only on the issue of which medium will be used, not much on how it will be used. In STOU, most of the course teams follow STOU media policy which allocates ten radio and three television programmes for one course. So, the issue about which medium to use is never raised. If there is enough time left, media issues are discussed in the last meeting of the course team process. It is usually the case, however, that the course teams do not have enough time for this. In the OU, even though it is claimed that OU printed material and broadcasting programmes are highly integrated, the media integration issue is discussed only at the very beginning of the course team process. Most of the producers

attend the meetings only during that period. One producer revealed that : "The meetings are not where the work gets done, it gets done outside, informally, by a small group of dedicated people. They reverse decisions made in the team and everyone else has a feeling of not being relevant, of not being any use" (Nicodemus, 1992a : 11). To give an example, there was a conversation between academic and BBC/OU producer in one OU course team noted by Gordon Lawrence; an observer on an OU course team :

Course Team Chairman : I've heard you have arranged some special meetings outside between you without telling the team anything about it. The course team should be informed.

Producer : Such arrangements are within normal operating procedures. It is expedient for subject groups to bring recommendations to the entire course team.

Course Team Chairman : I accept the spirit of that but the team ought to be better informed.

(Ibid : 20)

In the course teams, both in STOU and OU, the relationship between academic and producer appears to be coloured by suspicion rather than co-operation. The conflict directly affects the level of media integration. Without co-operation within the team, course content and broadcast programmes are often quite uncoordinated. No one person is responsible for mediating the whole creative process. In distance learning systems, it has always been said that the course team model is the most suitable approach for media integration. It is probably because the general expectation of the course team is too high. It can be argued also that it is the underlying idea behind the course team model itself that causes conflict between producer and academic.

BBC and its professionalism

Apart from working as a partnership with the OU, the BBC still has to consolidate its role as a public service organization. As stated in "BBC Producers' Guidelines" the rules of which apply to all areas of its programming : "The BBC name, with its associated channel logos is a recognisable brand. BBC programmes on radio and television are also strongly branded as such. The BBC brand and BBC logos must be associated only with the values of public service broadcasting - quality, fairness, accuracy and artistic excellence (BBC, 1993 : 234). Quality is judged not only by audiences but by certain professional standards developed by the BBC from its long experience. In the case of the OU, the BBC has ultimate control over the broadcast component of any course. BBC management is very sensitive about its image. Even so, it is unusual for OU programmes to be refused transmission by the BBC, but it once happened because of the inappropriateness of some scenes. This indicates also that the BBC concerns itself more about what is acceptable in general broadcasting terms, than by academic considerations.

An indication of BBC/OU producers' professionalism can be assumed from their preference for certain production styles. It can be shown from the questionnaire that the type of programme that has been used most in television by BBC/OU respondents was the documentary. The second most used category was the case-study. The result was confirmed by many OU researchers that case study and documentary-type programmes were very popular with the OU course team. One BBC/OU producer revealed the reason for

this : "What one is after is..building up prestige or kudos and becoming known as a good producer within the organization. Now of course this affects the way one makes a programme. For instance, you make more documentaries than straight teaching programmes, or at least it's those programmes you put a lot of effort into and regard as your selling point when it comes to Appointment Boards. What you want is to go along to the Current Affairs Unit and say.. I am the guy who makes programmes about urban problems in Liverpool" (Gallagher, 1977). Likewise, if the programme is proved to be very good, the producer might be able to transfer to another department in BBC. According to Bates, "Producers in educational broadcasting departments are small fish in a big pool. Many naturally see educational broadcasting as a stepping stone to other, perhaps more prestigious programming, with bigger budgets, better viewing times and much larger audiences (Bates, 1984a : 182). Evidence of this emerged from the free response question regarding difficulties BBC/OU producers faced. One of the BBC/OU respondents claimed in his own words that : "There is a lack of respect for educational output in the rest of the BBC.. there is also a lack of recognition of the fact that OU output is different" (BBC/OU 11).

For reasons of professional standing and the need for acceptability, OU programmes in most cases are produced in ways similar to other BBC programmes in terms of production style and format. Certain popular formats such as documentaries are also found in most OU programmes. Like BBC documentary programmes in general, OU documentaries can cover not only the area of Art,

Education, or Humanities, but also Science, and Technology. Undeniably, OU programmes are influenced by the values and principles of the BBC organization as a whole. This can also be explained, as mentioned earlier, by the fact that all the BBC/OU producers were trained in the same BBC internal courses as producers from other departments of the BBC. They have learnt the unique characteristics of BBC programmes. These unique characteristics have been always incorporated into OU series in order to attract general audiences. In BBC/OU production departments, the major pressure of working is to make quality programmes to satisfy both the BBC and the University. One producer said that "Perhaps because our product is more visible we are more vulnerable to attack. If we make a bad programme it will be turned against us both by our own bosses and by the OU" (Nicodemus, 1992a : 11).

Further, occupational pressure was created within the BBC organization when a five-year efficiency plan was adopted in 1988 to cut overheads, reduce staff posts and vacate expensive premises. The BBC announced a 40 percent cut in its capacity for studios and facilities. Two production studios at the BBC/OU production centre were closed down. A number of BBC/OU producers were made redundant. Producers felt insecure in their jobs; especially when there was a marked shift towards short contract employment. In the early 1990s, some employees (mainly aged over 40) were permanently employed on the old life-long basis but some senior people were on short-term contracts. What affected the

morale of the producers most was that many were on contracts of one year or six months (Tunstall, 1993 : 12).

BBC professionalism also involves commitment and peer-group feeling. The general public expect high quality programmes from the BBC and so the producers have to be committed to their work. One BBC/OU producer claimed that "At the BBC things are very different. People are working harder and are more dependent on each other, they have more distinct jobs and could not do each other's work" (Nicodemus, 1992b : 28). It is commonly said that only a specialist can judge the work of a specialist, and the BBC seems to have confidence in its own professional expertise. One of its producers indicated that "success is mainly judged by the reaction of one's colleagues. They're the people who really count.. one tries to get the programmes viewed by colleagues quite soon after the production, and their reaction is terribly important. Course team reaction can be important too, though sometimes it's less helpful. So, we tend to make programmes for our peers and superiors" (Gallagher, 1977).

Generally speaking, commitment and in-group feeling can directly affect programme quality. In a way, it is the pressure of working within a professional broadcasting organization like the BBC that generates and sustains the commitment of producers to their programmes. Burns stated that "there are people who are wholly committed to their present job - not only because of its intrinsic interest and rewards but also because of the sheer richness of the working environment - the attractions of work in

places frequented by the well-known, the notable, and the powerful, the satisfactions of doing a reliable, or competent or imaginative job in a complex operation, and receiving recognition for it.." (Burns, 1977 : 119).

This sense of commitment and in-group feeling, however, does not exist so strongly in STOU. It is simply because STOU producers are hired and paid by the University. They do not get exposed to the same kind of professional pressure as BBC/OU producers do. One STOU producer commented on this issue that "In general, STOU producers do not have a sense of commitment in the programmes they produce. Production work for them is considered just routine work. Consequently, the team work process could never work well in STOU. Everybody tries to do their own jobs, and get promotion" (STOU ET 20). According to the career structure of STOU, once the producer produces a certain number of both radio and television programmes, he or she can automatically get promoted from educational technologist into 'lecturer'. The promotion criteria are mainly based on the quantity of programmes they have produced rather than the quality. It could be said here that all STOU producers want to get promoted to be a lecturer to obtain more privileges and respect even though they still have to be in charge of the same kind of production work. The struggle for promotion within this kind of career structure does not seem to exist in BBC/OU production departments owing to the fact that the job of producer in Britain is seen as a high-status career and they get paid as much as academics in universities (Interview, October 1994).

In STOU, to become a lecturer means to have more responsibilities. 38.7% of STOU producers who had also the title of 'lecturer' thought that they were overloaded with work. Apart from daily production work, they have also to occasionally teach in tutorial sessions, take charge of examinations and attend degree convocation ceremonies as University representatives. In other words, they have to share some responsibilities of a full-time lecturer while the amount of production work is not reduced accordingly. In addition, each STOU producer has to produce a weekly radio and television programme series for the general public. These extra responsibilities of STOU producers affect also the quality of programmes. One of its producers observes: "The career system and career structure within STOU makes it difficult for us to dedicate ourselves only to production work. What we are doing is not professional. I think there should be a clear distinction between producer and lecturer, or even producer and educational technologist. Within our present system, one person can play the role of producer, educational technologist and lecturer at the same time" (Interview, May 1994). The problems of playing three roles at the same time are discussed in detail in chapter 7.

Styles and formats used in OU and STOU programme

The professionalism of the BBC is evident in the style and format of OU programmes. From the questionnaire, it can be seen that the documentary-style programme has been used most by BBC/OU respondents in television programming. It was followed by case studies, interviews, dramas and discussion programmes

respectively. In radio, there was no evidence from the questionnaires as to what type of programme was mostly used. Types of radio programmes generally used by BBC/OU respondents were documentary, discussion, interview, case study, and straight talk.

In STOU, the types of programme that were mostly used by its producers were documentary, conversation, docu-drama, straight talk, and interview programmes respectively. For STOU radio, interview, documentary, conversation, straight talk, and docu-drama programmes were ordinarily used. The major distinctions between OU and STOU programmes found in the questionnaire were that drama was much more used by BBC/OU respondents than STOU producers. Straight talk was sometimes used by BBC/OU respondents in radio, but never in television. On the contrary, straight talk programmes were often used both in STOU radio and television. From the questionnaire results, 71% of STOU producers used straight talk mostly in radio, and more than half of them (58.1%) used straight talk frequently in television. This evidence shows that STOU programmes, in general, are more likely to be produced in straight-instructional format than OU programmes. As observed before, the approach to OU programmes has shifted from illustrated lecture or straight talk to the presentation of much more general service broadcasting (Gallagher, 1978; Miller, 1979). Gradually, different styles of 'BBC-type' programmes have been introduced. Some styles have become more popular than others. Case studies and documentaries, are, for instance, always popular within OU course teams.

It should be noted here that 'case study' is a term used interchangeably with documentary. The definition of a case-study or documentary in the OU context is a "programme that presents students with real-world examples which they can then analyze using the theories, concepts, and criteria they have met elsewhere in the course" (Brown, 1979b : 7). This type of programme, then, helps students to develop learning skills such as analysis. In other words, the information provided in the programme is for students to analyze using the theories and concepts they have learnt from the text. The documentary or case-study type is therefore not a straight instructional format like most STOU programmes. It was, however, surprising to learn from the questionnaires that the documentary was also one of the most popular styles used by STOU producers. The only explanation can be that documentary is defined differently in the case of STOU.

According to STOU, a documentary is a "programme that presents one subject in various parts and in different presentation styles. Each part of the programme is then connected by a continuity narrator" (Office of Educational Technology - STOU, 1994 : 37). An example of a STOU documentary programme is given as follows :

A programme about 'Thai New Year's Day'

Part 1 (narration); a history of Thai New Year's Day
..a linkage from the continuity narrator
Part 2 (interview); interviews with three senior citizens
about old customs of Thai New Year's Day
..a linkage from the continuity narrator
Part 3 (music); presentation of Thai New year's music
..a linkage from the continuity narrator

Part 4 (discussion); discussion about general celebrations
on Thai New Year's Day
..a linkage from the continuity narrator
Part 5 (conclusion)

It can be argued here that this programme that STOU claims to be a documentary is simply a type of lecture or straight talk. It is a lecture or straight talk that is delivered by various styles of presentation. Indeed, all the programmes that were classified by STOU producers as conversation, interview, and discussion are lecture types of a sort.

It is clear at this point that STOU and OU programmes employ different pedagogic approaches. While STOU programmes provide students with a more straight-forward didactic type of presentation of the text, OU programmes give students more opportunities to learn and develop a deep approach to learning. This issue is examined in chapter 8 where two selected courses from OU and STOU are analyzed to see how media, as an integral part of the course, can develop skills in learning.

Associated with styles of presentation, respondents were asked about the criteria for using radio or television in distance learning course. From the questionnaire, it appears that each producer both in OU and STOU develops his or her own criteria for choosing which media to use for different parts of the course. As one BBC/OU respondents pointed out, "We don't think, talk, discuss how we use media. It's all left to intuition" (BBC/OU 8). It is also clear that the criteria they adopt have been drawn from their experiences and their own cultural needs. In

many ways, however, the criteria can be controlled by financial and internal political factors as well as ideological factors described earlier rather than truly pedagogical considerations. There was a significant difference between criteria used by BBC/OU respondents and STOU producers regarding media selection. All BBC/OU respondents appeared to have a common goal in using broadcasts. As a basic rule for them, teaching functions could be encouraged by the unique characteristics of each medium. In other words, the strengths of each medium were used to reinforce certain teaching functions to facilitate learning. Some selected answers from BBC/OU respondents that could best represent their criteria of media selection are as follows :

"The only realistic criterion is the suitability of the message for the medium" (BBC/OU 11).

"Television and radio selection is usually based on the visual nature of the material to be communicated. We select television largely when there are places, images, working arts, artifacts, performance, or interesting people. Radio tends to be selected where the content is non-visual e.g. theoretical discussion, argument, or music" (BBC/OU 9)

"I like to use television to put across particularly visual messages. I also believe that it is a slower medium where the message can be put across in a detailed way. Radio is much pacier and allows me to convey large amounts of information very rapidly" (BBC/OU 6).

It appears that according to OU criteria, together with the BBC professional ideology, OU programmes generally tend to examine only one particular aspect of the course. STOU programmes, on the other hand, attempt to cover all main concepts presented in the texts. From the questionnaire, STOU producers seem more concerned with how to put all the main concepts of the course into the programmes. It has been stated that STOU radio

programmes are to enrich course blocks, whilst television is used as a supplementary medium to the course (STOU Academic Bulletin, 1990: 4-5). From the questionnaire, the criteria used by STOU producers can be classified into three groups : 1) Ten radio and three television programmes allocated to each course are used separately to cover the main concepts presented in all 15 units of the course. In general, the three most difficult and important concepts are clarified in television programmes. For radio, general knowledge presented in the units (10 out of 15) is summarised in each programme, normally by the author of each unit. 2) The main concepts of all 15 units are summarised in 3 television programmes and repeated in 10 radio programmes. It works as follows: the first television programme covers units 1-5, the second programme covers units 6-10 and the third covers units 10-15. The same system is applied also to radio. 3) Some producers have their own pattern in dividing content area into broadcasts. For instance, the first television programme is to provide students with general knowledge or theories of the course; the second programme is to summarise or clarify the main concepts of the course and the final programme is to give examples related to the main concepts of the course. For radio : the first programme is for course orientation, the 2nd-4th programmes are for general introduction to course content, the 5th-7th are used to enrich their general knowledge, radio programmes 8 and 9 provide a summary, and the final programme is for revision.

The finding indicates that STOU producers mainly use radio and television to summarize course content and clarify major or difficult concepts of the course. Basically, the message presented in the text is just repeatedly presented to students in the form of radio and television programmes. This criterion was opposed by one BBC/OU respondent who stated that : "It must be fatal to attempt to cover all aspects of the course. It would be much better to select one particular aspect and examine it closely, than allowing the students to take the same approach with another aspect. This is the art of educational programme-making which partly consists of leaving something for the learner to work out and respond to for themselves. That way programmes become owned by the viewer (BBC/OU 13)."

The two different criteria used by BBC/OU respondents and STOU producers directly affect the level of media integration in the course. The issue about integration is discussed in greater detail later in chapter 7 and 8.

Target groups of OU and STOU programmes

It is clear from the answers regarding target groups that all BBC/OU respondents and STOU producers viewed students as their main target group, and the general public as their second target group. The first Vice-Chancellor of the OU, revealed that "We knew that many people tuning into broadcasts would be affected, to become students, or to improve their own level of information. But we have always been pretty ruthless in saying..we are producing programmes for our own students, we do not have one eye

looking over our shoulder to produce programmes for others" (Perry, 1973 : 149). From the viewpoint of one BBC/OU producer, there is reason for making a programme for both groups : "In my opinion, it is difficult to make a programme for students only because we are using public airtime. Everybody now is looking for audiences. There is a lot of competition. Everybody is looking for keeping up audiences. If you put up programmes that are very specialized only for students, there is a danger that in the long-term we will be pushed off the air. It is a political move and you have to be aware of that (Interview, October 1994). In other words, in OU programme making, it is essential to strike a balance between the educational identity of the OU and the BBC professional mode.

Nevertheless, producing the programme for two different groups is not an easy task. The same BBC/OU producer revealed that "Catering for two audiences, we are walking on a tight rope. It is extremely difficult. It depends very much on the subject how successful the programme are. There are some subjects that are easily made into programmes for both audiences. We can talk about something that someone understands quite easily. There are also some subjects that are extremely difficult to make them suitable for both audiences" (sic) (Interview, October 1994).

Most STOU producers, on the other hand, did not mention their difficulties in making programmes for two target groups. However, two of them suggested that STOU policy regarding target groups should be revised. One gave his reason : "Even though the

University aims to make the programmes primarily for students, students seem to obtain less advantage from the broadcast. It is mainly because the programme content is too general for them..because the content we put in the programme must be understood also by the public. Consequently, students think that broadcasts are not made for them. Anything they might learn from broadcasts can also be simply learnt in texts. I think, STOU should make its broadcasts more appropriate for the students" (Interview, May 1994).

Even though a majority of STOU educational technologists appeared satisfied with the present system at STOU, almost all of them felt that the system needed to be revised. Ten of them said that the media system at STOU was not a truly integrated multi-media system. Another ten pointed out that problems in designing appropriate broadcast material for STOU were caused by a lack of knowledge and understanding about media especially among course team members. The rest of the respondents were concerned about STOU policy regarding target population, team working and the new era of technology in learning.

Overall, the two issues most commonly raised by STOU educational technologists were : proper use of media and alternative forms of integrated multi-media systems. These two issues will be fully discussed in chapter 7. The following chapter observes the attitudes of OU and STOU students towards their broadcast materials.

CHAPTER 6

QUESTIONNAIRE SURVEY II

CHARACTERISTICS OF INTEGRATED MULTI-MEDIA SYSTEMS IN OU AND

STOU : SOME REFLECTIONS FROM OU AND STOU STUDENTS

The main purpose of this questionnaire survey is to examine the attitude of students in OU and STOU towards broadcast material. The questionnaire survey both in Thailand and the United Kingdom was carried out during the summer of 1995.

The main difference between this survey and the previous one is that where the latter focused on the attitude of producers or educational technologists who created the programmes, the former is concerned with the students' attitudes towards those programmes. Apart from examining student attitudes towards broadcasts, the second purpose of the survey is to explain the ways students exploit broadcast programmes. This enables us to compare the results with what the producers intended in the first place. The questionnaire used in this survey contained both closed and open-ended questions which enabled the students to include their own comments.

The same set of questionnaires in Thai and English were sent to students in both countries. The subjects of the study were 100 STOU students and 100 OU students. All of them were officially registered students. In Thailand, questionnaires were given to students who attended the "Media Production for Public Relations" workshop. It was a four-day workshop organised by the School of Communication Arts in the headquarters of STOU. Most of the

students who attended were second or third year registered students in the School of Communication Arts.

Questionnaires were also given to two groups of OU students that attended the "Summer School" at the University of Stirling, Scotland during 22-29 July and 29 July-5 August. They were registered Open University students for D309 "Cognitive Psychology" : a third level course in Social Sciences. As with the STOU subjects, most of the OU students were in the second or third year of the course.

The questionnaire respondents in both Thailand and the UK have experience in making use of radio and television programmes produced by their own institutions. Even though the subjects of the study were second or third year students, they had not necessarily ever watched STOU or OU broadcasts before. Therefore, students were asked initially if they had ever experienced STOU and OU broadcasts before, and the questionnaires were given only to those who were familiar with the programmes and willing to complete the questionnaires. Hence, students in the survey sample had quite considerable experience of their own educational broadcasts. In the case of OU students, 100 volunteer respondents got the questionnaires when they first arrived at Stirling and were asked to return the questionnaires before they left the campus. The same criterion was applied in STOU.

1. Findings from OU questionnaire survey

Characteristics of OU programmes as appreciated by OU students

Students were asked at the beginning of the questionnaire about the characteristics of OU broadcasts. They could choose more than one characteristic if appropriate. Results were :

Table 1 : Characteristics of OU programmes as chosen by OU students

<u>Number of students</u>	<u>Characteristics</u>
30	The programmes reinforce the ideas presented in the written material as well as provide new perspectives on the subject in the way that units do not.
28	The programmes provide new perspectives on the subject in the way that the units do not.
21	The programmes reinforce the ideas presented in the written material.
12	The programmes reiterate the course content as well as reinforce the ideas presented in the written material.
9	The programmes reiterate and reinforce course content as well as provide new perspectives on the subject in a way that the units do not.

As seen from table 1, the highest number of students (30%) selected two particular items. They were : 1) the programmes reinforce the ideas presented in the written material 2) the programmes provide new perspectives on the subject in a way that the units do not. Each of the remaining 70% , however, chose only one item to describe the characteristics of OU broadcasts. Twenty-eight percent said that the main characteristic of OU programmes was that they added a new perspective to the course. Twenty-one percent believed that the programmes were created to

reinforce the ideas presented in the text. Twelve percent of the students said that the programmes reiterate and reinforce the course text but never provide any new perspective to the course. A minority of students (9%), however, thought that the programmes had three characteristics which were reiterating the texts, reinforcing the course concepts and providing new perspectives. It is worth noting here that none of the OU students thought that the OU programmes aimed merely at reiterating the course content.

Looking in greater detail at each item students chose to describe the characteristics of OU broadcasts, the item that was most frequently chosen by the students was the one that described OU broadcasts reinforcing the ideas presented in the text (chosen 72 times). The second most frequently chosen item was that the programmes were to provide students with new perspectives to the course (chosen 67 times). The item that were least chosen was the item describing the OU programmes as a summary of the course (chosen 21 times only in combination with other two items). The fact that none of the students found the OU programmes merely reiterate the text indicate that students perceive the characteristics of OU programmes in the same way that BBC/OU producers intended. One of BBC/OU producers revealed in the previous questionnaire survey that :

"It must be fatal to attempt to cover all aspects of the course. It would be much better to select one particular aspect and examine it closely, than allowing the students to take the same approach with another aspect." (BBC/OU 13)

Students were also invited to explain more about characteristics of OU programmes in accordance with their experience. These

open-ended comments proved a valuable source of information. Half of the students (50%) made comments. Most of them (47 students) appeared to approve of the characteristics of OU broadcasts. Only three of them complained about the broadcasts. Seven of them expressed positive attitudes towards the way OU programmes provided them with new perspectives on the course. The rest of students' comments towards OU broadcasts' characteristics could be categorised as follows :

a) Students viewed broadcasts as alternative mode of learning

The largest group of students (14) found that OU broadcasts programmes were helpful for them. They claimed that the audio-visual mode of radio and television facilitates learning. Some comments were :

"..Because you are reading the material and seeing it visually (using two modalities to process material), you find that it reinforces the ideas and makes them easier to remember." (OU Student 45)

"You cannot read some issues as well as you can seeing it in context on screen. For example, an issue concerning child guidance involves voice inflection, body language, special clues; not given in script or dialogue alone." (OU Student 79)

"Any extra form of presentation , even of the same material must be helpful." (OU Student 100)

Students who found that the programmes provided a useful alternative mode of learning appeared to think that the audio-visual mode of presentation could aid learning by reinforcing important concepts aurally and visually. This view was supported by other comments in the following page :

"An opportunity to have subject experts and have ideas consolidated visually." (OU Student 17)

"Having other people's views and visual examples of work help understanding." (OU Student 23)

"They give a chance to hear debate especially between leading figures in their field i.e. debate between psychologists from different perspectives." (OU Student 41)

"To see concepts demonstrated is a very helpful thing." (OU Student 49)

"Course topics presented visually reinforce course material." (OU Student 98)

Their appreciation of the audio-visual mode of learning appeared to conform to the attitude of BBC/OU producers. According to the previous survey, one of the common goals of BBC/OU producers in selecting media for teaching was to use the strengths of each medium to reinforce certain teaching functions. It is important that students can understand this point so that they can appreciate different methods of learning.

b) Students viewed broadcasts as a way of bringing "study material" to life

The second largest group of students (11 of them) found that the OU programmes were particularly useful in that they brought study material to life. One of the points mentioned by some students was that concrete examples provided in broadcasts could indeed facilitate learning. By concrete examples, they meant :

"Practical visualizable demonstrations i.e. you can see psychology" (OU Student 10)

"The programmes provide real world examples, for instance, experiments being seen in a lab rather than actually reading about them and trying to work out yourself how they were done." (OU Student 51)

Nevertheless, almost all of the students in this group described this unique characteristic of OU programmes by referring to "case-studies" or real life situations.

"Course concepts were sometimes difficult to understand clearly. It would help by watching programmes. For example, the theory was made clear by real work." (OU Student 47)

"The radio and television programmes show social science in action, more vividly to real-life experience. They are also able to explain theories and concepts in everyday language. They make the subject less remote, more real." (OU Student 52)

"DSE 202 - autistic child programme about working with autistic children really deepened understanding and could be applied into a real-life situation." (OU Student 83)

"The programmes provide in general excellent case studies." (OU student 92)

Case-study type programmes are very popular with the OU course team; particularly in the Social Sciences. It appeared that students who appreciated case-study type programmes were able to relate programme material to the texts. Consequently, they gained a more positive attitude towards learning. As mentioned by one of the students, "the programmes bring to life the written content by articulation and give confidence to the student" (OU Student 27).

c) Students developed their learning skills through the use of broadcasts

Five students expressed their ability to use broadcasts for developing their learning skills. Most of the students in this group said that the programmes allow them to think deeply about

the subjects, in some cases how the programme material can be related to the course itself. The comments were as below :

"More opportunity to study concepts in depth.." (OU Student 4)

"In my last course, the television programmes gave me a clearer understanding of the application of the theory.." (OU Student 44)

"Thinking back to D103 - the programmes were excellent and made me think deeply about social issues.." (OU Student 48)

"Make me think how the content of the programmes can be related to theories in the text." (OU Student 67)

"The use of programmes in foundation courses particularly allow you to see the bigger picture - how the material fits into the overall picture." (OU Student 87)

This small, but significant number of students indicated the success of OU broadcasts in terms that some students could apply content of the programmes to what they had learnt elsewhere in the texts. Gallagher stated that the programmes would be most educationally effective only when the students know what they were supposed to do with the materials provided (Gallagher, 1977).

d) Students viewed programmes as course content clarification and reinforcement

Five students appeared to appreciate the programmes that directly helped them with the course content. Their comments were :

"The programmes exemplify the ideas and concepts introduced by the course material." (OU Student 35)

"The television programmes for D103 were very good; reinforcing the content." (OU Student 56)

"Difficult concepts were clarified." (OU Student 82)

"The advantage within M101 is that quite often it is difficult for myself to visualize just what is required with respect to certain problems. Seeing examples done on the TV programmes helps clear up many uncertainties that I would otherwise have" (OU Student 90)

"Help clarify points and make the course material easier to understand" (OU Student 94)

These students tended to look for the clear "direct" message from the programmes. They are satisfied if the programmes simply helped them in a didactic learning manner. They might have rated the programme as "unhelpful" if they could not find the message they wanted to be clarified from the programme material.

e) Students recorded material for later consultation

There were 3 students who revealed that OU programmes were useful since they could be recorded to be viewed for revision purposes. Two comments below showed the benefit they gained from OU recorded material :

"You can stop them when you need to clarify the point."
(OU Student 18)

"Can be recorded and reviewed with literature as appropriate." (OU Student 55)

The remaining 5 students who volunteered comments concerning characteristics of OU broadcasts had both positive and negative attitudes towards them. One of them said that they found the OU programmes relaxing and enjoyable. Another student pointed out a psychological aspect of the programme made for distant learners which was : "the programmes counteract aspects of isolation..

being able to relate to other people, voices helps one feel less isolated" (OU Student 91) (sic).

Additionally, there were three negative comments given by the students. One student found OU broadcasts outdated and unhelpful (OU Student 65). Two comments were also commonly mentioned in various OU internal researches. One student claimed that :

"I think you don't really need to watch the programmes. On the course I have done, they do reinforce but can be a bit old hat." (OU Student 21)

This student found value in OU broadcasts but discovered that she did not need it for her study. According to some OU research mentioned in chapter 4, some students did not want a simple repetition of what was already in the texts (Miller, 1979). If the programmes did not advance their knowledge of the subject, they just stopped watching or listening to the programmes. Some OU students, on the other hand, tended to find the programmes that directly reinforced the unit very helpful. The explanation could be that the students differ in their need and ability to learn. The target audience of distance learning courses is particularly varied in terms of these skills. For some students, learning through texts might be enough whilst some prefer to be taught by an expert. Gallagher, for example, found three kinds of student response to documentary-style television programmes : those who wanted to be directly instructed, those who preferred to analyze programme material by themselves, and those who sought more textual guidance to help them with the programmes (Gallagher, 1977). Differences in individual need and ability

in learning always affect students' appreciation and approach to the programmes.

The final negative characteristic of OU programmes as perceived by some students is related to the issue of guidance seeking mentioned above. One student criticised that :

"The programmes explain things in more detail sometimes. They could make them link to other parts of the course."
(OU Student 37)

The difficulty students had in bridging the gap between programmes and other course components was one of the issues that was frequently mentioned by OU students in this questionnaire survey. It will be discussed in detail later.

Student perceptions towards the connection between broadcasts and course units

The response to a question regarding the connection between broadcasts and correspondence texts was very positive. A majority of the students (62%) found programmes and texts well connected, and a further 22% rated them as very well connected. This was despite the fact that 11% thought that they were not very well connected. The remaining 5% believed that the connection between the two course components varied from course to course. These results are shown in the following page :

Table 2 : Connection between OU broadcasts and course units as perceived by OU students

<u>Number of students</u>	<u>Connection between OU broadcasts and course units</u>
62	Well connected
22	Very well connected
11	Not very well connected
5	Depends on courses

Students were invited at the end of this question to volunteer comments about any deficiencies they experienced in the connection between OU broadcasts and written texts. Thirty-three students gave their opinions about this.

There were various types of comments given by the students. They represented good, bad, and neutral views. One comment was found to be extremely positive. This student considered broadcasts to be an important part of the course. He said :

"For the courses that do not have any programme associated with them, I feel this is a great loss." (OU Student 18)

Five of them gave relatively neutral comments by saying that they found the level of integration in some courses to be good while in others the connection was not so explicit. The connection between the course and the programmes depended very much on the nature of the course.

The way students perceive the level of integration between broadcasts and course units is also influenced by their learning behaviour. OU programmes are always broadcast in parallel to the

texts. Therefore, if a student is working in sequence or "on schedule" as set out by the University, he should be able to find the connection between the two. This is because the learning is planned in an integrated manner. If a student gets behind schedule i.e he does not read the text in advance, he might not be able to find any connection at all. This factor was also recognised by some students themselves. One of them wrote about this :

"A problem most often arises if programmes do not fall at the same time as the time of reading about when they refer to especially if the student is behind with reading." (sic) (OU Student 41)

Some simply wanted the programmes to be connected to the units to help them with the assignment :

"Sometimes broadcast after the units, so too late to be of help for assignments." (OU Student 57)

Another student suggested that :

"The programme could be closer particularly for courses with little tutorial support." (OU Student 96)

Among those who found programmes and texts relatively well connected, three students thought that the programmes aimed too much at general interest. For them, this could decrease academic value. What they said is shown below:

" Perhaps a need to look more at greyer areas." (OU Student 46)

"Generally the programmes are well connected but can go off in another related direction to serve public interest which may not be covered by the course unit." (OU Student 51)

"Sometimes programmes are just for interest. One feels there would be no big deal if it was missed." (OU Student 58)

The comment from student 58 was a very good point for programme makers who aim to produce instructional programmes for two target groups : students and the general public. If the programme is very tightly integrated with the texts, it would probably fail to reach the general public. On the other hand if the programme is loosely integrated with the texts in order to appeal to the general public, students would think that broadcasts were not an essential part of the course and stop making use of them.

Two students made comments that contrasted to the view that OU programmes should be more instructional for the students instead of more interesting for the general public. They found the OU programmes were too narrow and academically-oriented. One said that "television programmes sometimes stick closely to the units which can be a little tedious" (OU Student 80). Another had a similar observation which was :

"The programme may identify certain aspects at the expense of others, this may make the student concentrate on one area over the rest of the unit material." (OU Student 55)

The last comment confirms the finding from the first questionnaire survey which concluded that BBC/OU producers tended to produce programmes that examined only one particular aspect of the course. Certain popular formats for general broadcast such as documentaries are frequently found in OU programmes. Some students prefer these programmes. This group of students,

also represented in this survey, tend to seek out programmes which are informative and entertaining at the same time. However, there are also students who "...do not expect an OU programme to be like a general service documentary any more than they would expect it to be like a course unit or the chapter of a set book or a tutorial. Rather they would expect it to use different forms and conventions to organise and express its ideas" (Morgan, 1978 : 3).

Another interesting point raised by students was the pace of studying. Students have to carefully adjust their study pace in order to be on schedule with the rest of the course when the related programme is being broadcast. Therefore, it is important that programmes are indeed in synchronization with textual material. When students had difficulty with a programme, most of them tended to think that there was little in it of relevance to the course. However, the difficulty might have resulted from gaps in their knowledge as they had not yet read the appropriate texts. Alternatively, the conceptual link between the programme and the text might not have been adequately explained. In both cases, some students would simply say that the connection between programmes and the course was poor and would therefore not spend more time on it. They should, instead, try to clarify any confusing points they experienced in the programmes.

Two respondents from this questionnaire survey revealed that their confusion caused by the programme was lessened if they waited until the end of broadcast for clarification. One

recorded the programme to be revised later to clarify the points.
They wrote in their own words as follows :

"Sometimes, connection cannot be seen immediately, but issues can become clarified at the end of the programme."
(OU Student 36)

"With some courses, I felt that the material was difficult to follow initially and I had to play the recorded tapes many times. Initially the material was confusing and very contradictory. After revising, at the end I was able to appreciate the material much more." (OU Student 44)

The remaining three students (student 38, 48, and 53) claimed that OU programmes were out-of-date. Sometimes, they couldn't be properly connected with correspondence texts which were more frequently updated.

The 11 % of students who said the connection between OU programmes and course units was poor will be examined in greater detail. Of these 11 students, eight revealed that they had difficulties linking programmes to textual material. Most of the students in this group (8 out of 11) also found that OU programmes provided new perspectives to the course unit. This can be explained in two ways : 1) they were looking for a "direct message" rather than new information relevant to the course 2) they did not know how to fit the new information into course material. This is illustrated in the following students' comments :

"I don't find that the programmes ever explained or shed light on anything the way units / tutorials do." (OU Student 21)

"Some programmes are just general topics , not directly related to the units. I expect the content to be relevant to the course rather than general overviews." (OU Student 27)

"Require more explicit interrelation of programmes into the main body of the course." (OU Student 59)

"The programmes could be used to enhance the course material i.e revision or tutorial aids." (OU Student 65)

"Although new perspectives given, it is sometimes difficult to relate /integrate them with course material." (OU Student 67)

"The programmes tend to look at specific areas which are not elaborated on in course units and no specific references made to link them in." (OU Student 77)

Student perceptions of Broadcast Notes

Almost all students appeared to have appreciated broadcast notes. Ninety per cent of them said they found broadcast notes useful. Three students claimed that they had never received broadcast notes. One thought that the usefulness of the notes varied according to the course. A small, but significant number of students (6%) did not find broadcast notes useful for them. The results are shown below :

Table 3 : Usefulness of broadcast notes as perceived by OU students

<u>Number of students</u>	<u>Usefulness of broadcast notes</u>
90	Useful
6	Not useful
3	Never received any
1	Depends on courses

Among 90 students who indicated that broadcast notes were useful, 57 of them made some comments. The most frequently mentioned comment about the usefulness of broadcast notes, given by 28 students was that the notes helped them follow the broadcasts. For example, the notes provided them with a brief resume of key

points made in the programmes, some further background information about the programmes, and explanation or clarification of difficult points presented in the texts. One revealed that broadcast notes could also act as good revision notes to remind him or her of the programmes.

Apart from being a useful source for learning, a further 13 students found broadcast notes good for preparatory work. They used the notes to prepare themselves before watching the programmes. This group of students believed that reading the notes before broadcasts enabled them to get more from the programme. Another 11 students found broadcast notes useful as a reference to relate programmes to correspondence texts. For them, broadcast notes were justified as an aid to finding the link between programmes and units. A summary of the uses students made of broadcast notes is found below :

Table 3.1 : The uses students made of broadcast notes

<u>Number of students</u>	<u>Usefulness of broadcast notes</u>
28	A resource in helping them following the broadcasts
13	A resource for preparatory work
11	A linkage between programmes and course units
4	A substitute for the programmes
1	An interactive source of material

As seen from table 3.1 above, students used broadcast notes in different ways to suit their style of learning. It is interesting to see from the table that one student found

broadcast notes "interactive" This student explained that the notes were interactive in that they could give students activities to do as well as stimulate them to think before or even during presentation of the programmes. This preparation and reinforcement results in effective utilization of broadcast material (Kern, 1976). With the help of activities or stimulation, students will become more active in learning.

It is clear that broadcast notes are meant to be used basically as support texts that help students establish the context of a broadcast. The role of broadcast notes is to minimize the gap between programmes and the texts. The linkage between them is made more explicitly in the notes. It is not surprising that according to OU research, the broadcast notes on many courses were rated more helpful than the programmes themselves (Bates, 1981b :19). Some students, however, appeared to mistake the role of broadcast notes. As previously mentioned, one respondent in the present survey found broadcast notes useful for revision purposes. Some students treated broadcast notes as substitutes for the programmes themselves. This emerged from comments given by four students as follows :

"Broadcast notes could include more detail as for example when one has missed an emission, one needs the information to write up TMA." (OU Student 18)

"If you miss the programme, the notes are usually enough.. also good for revision." (OU Student 38)

"They are explicit and detailed and could replace / substitute for the programme." (OU Student 67)

"Good if you miss the broadcast." (OU Student 100)

These comments indicated that some students tended to miss broadcasts because they thought that information provided in the notes was enough for them. OU research also showed that students found a summary of the main points of the programme in broadcast notes useful but if a lot of detail was provided in the notes, students could just read the notes and drop the programmes (Ibid, 23).

Two students in the survey were not so impressed by the amount of detailed information provided in broadcast notes. They said that even though they found broadcast notes useful, too much information could hinder pace and freedom in learning. They revealed that :

"Yes, they are useful but I very seldom need them. They are easier to use if you watch on video.. to be able to start and stop." (OU Student 21)

"..Large amounts of notes would reduce enjoyment of the broadcast. Having notes already means you can concentrate more on the broadcast." (OU Student 23)

The two comments above show that integration between broadcasts and texts can have both advantages and disadvantages. Students 21 and 23 pointed out some disadvantages of integrated broadcasts and course materials. The first comment points out that it might be difficult for some students to find the bit in the text relevant to the broadcast material as they watch or listen to the broadcasts. Due to the nature of broadcasts, students cannot stop the programmes to examine the points made in broadcast notes, unless they are able to record the programmes and revise them later. The second point made by student 23 implies that

radio and television broadcasts are closely integrated with texts. They can become less accessible to drop-in viewers or to students who prefer to have more freedom in learning. Too much information in broadcast notes can simply limit flexibility for adopting a personal learning style. Therefore, students who prefer to learn independently will either not use broadcasts, or will use broadcasts but not bother to read the notes. This is the case when students explained why they did not find broadcast notes useful for them.

There were six students who claimed that they did not find broadcast notes beneficial. Two of them did not give any reason for this. One simply said that he kept forgetting to read the notes (OU Student 7). The remaining three students gave the following useful explanations :

"I tend to watch them and try to relate to course material using my own interpretation rather than the broadcast notes." (OU Student 4)

"Too much detail before watching video/television programmes does not allow the individual to learn from his or her own perspective." (OU Student 46)

"If I use the booklet, I find myself stopping the video every few minutes to pick up relevant points. I get a much better overall picture if I simply watch the whole programme straight through and ignore notes.." (OU Student 68)

It cannot be denied that adopting a personal learning style is a positive thing in learning. Students should "learn how to learn" by themselves but some guidance in learning is also important for some students. Broadcast notes can play that role efficiently if they are not entrusted with too much detailed information about the programmes themselves.

Students' difficulties with OU broadcasts

In this question, students were asked whether they had any difficulty with programmes broadcast by the OU. Students could indicate more than one difficulty from the items provided. There were 105 answers in total from all students. Results and percentages are shown below :

Table 4 : OU students' difficulties with OU broadcasts

<u>Number of students</u>	<u>Difficulties with OU broadcasts</u>
32 (30.5%)	No difficulty
22 (21%)	The link between programme and course unit is not clear.
21 (20%)	Transmission time is inconvenient.
14 (13.3%)	The content of the programme is sometimes too difficult to understand.
8 (7.6%)	The programmes do not add anything significant to material covered in the written text.
8 (7.6%)	The aim of the programme is not clearly specified.
105 (100%)	

About one-third of the students (30.5%) wrote that they had not experienced difficulties with OU broadcasts. Another 20 % of students indicated that they did not have any difficulty with the content of OU broadcasts either. These students revealed, however, that they had difficulties with OU transmission time.

The item that was most frequently chosen by students who had experienced problems with OU broadcasts (21%) was : "the link between programme and course unit is not clear". Following this was the item "the content of the programme is sometimes too

difficult to understand" which was chosen by 13.3% of the students. The two least frequently chosen items were "the aim of the programmes is not clearly specified" and "the programmes do not add anything significant to material covered in the written text". Each of these was chosen by 7.6 % of the students.

The fact that only a small number of students found that the programmes did not add anything new to the text confirmed the finding that most OU students felt the programmes reinforced the text and provided new perspectives on the course. Regarding students who said that the content of OU programmes was sometimes too difficult to follow, it is worth mentioning that they may not have had difficulty with the programmes themselves but rather with the ways in which each programme had been produced. Evidence for this emerged from the following comments given elsewhere in the questionnaires by some of the students in this group :

"Some of the audio broadcasts either radio or block cassettes seem rushed. They are difficult to keep up with, particularly when just one person is speaking. I prefer two people to be involved so that questions and explanation can break up the monologue." (OU Student 52)

"Need for link to specific level or make sure multi sensory learning aids used i.e flow diagrams as well as speech." (OU Student 53)

"If we could purchase taped transcripts they could be more useful as we could re-wind the tape to go over significant points." (OU Student 54)

"After foundation level, the programmes tend not to have a 'key feature' summary. Presenter should not be too technical but should be pitched at mid range of understanding." (OU Student 83)

Here again, as mentioned earlier, it is clear that there were always some students who would expect the programmes to be more like instructional texts.

It can be said that the broadcasts produced for OU foundation courses were carefully designed and allocated. Each OU foundation course has the same allocation of broadcasts and is similar in level of difficulty and amount of work demanded. Each foundation course programme is shown fortnightly. Students at foundation level enjoy the maximum allocation of broadcasts and receive more direct instruction through the programme material than students registered in more advanced courses. This can be seen as a strategy to develop students' learning skills. Therefore, students registered in more advanced courses would not experience broadcast material that was as simplified and directly instructed as the ones studying at foundation level.

It was also apparent that difficulties students experienced with OU programmes were not caused by the students' lack of background knowledge about the subject matter presented in the programmes. This is because only a small minority of students (7%) believed that OU broadcasts required some background knowledge on the subject, while more than half of the students felt this was never the case. The remaining 34% said that it was sometimes necessary to have background knowledge when watching or listening to OU broadcasts.

Following on from the questions about the difficulties they encountered with OU broadcasts, students were asked about ways in which they felt the programmes could have been improved. A total of seventy-three suggestions were given. Students' suggestions can be categorized as follows :

Table 4.1 : Suggested ways in which OU programmes could have been improved

<u>Number of students</u>	<u>Improvement suggested</u>
16 (21.92%)	The programmes should broadcast at more sociable times.
16 (21.92%)	The programmes should be more updated.
12 (16.44%)	The programmes should be recorded in the forms of audio-cassettes and video tapes and be provided to students by the University.
12 (16.44%)	There should be more explicit linkage between programmes and course units.
8 (10.95%)	The programmes should be more "direct teaching".
5 (6.85%)	The programmes should be more "interactive".
4 (5.48%)	There should be more programmes per course.
73 (100%)	

Two of the improvements that were most commonly suggested by students were 1) programmes should broadcast at a more sociable or appropriate time (suggested by 16 students) and 2) programmes should be updated (suggested by another 16 students). Twelve students asked for recorded material such as audio cassettes or video tapes for the course. Another twelve students again expressed a need for more explicit linkage between programmes and

correspondence text. Four students also suggested that the OU should allocate more broadcasts for every course.

With regard to the characteristics of OU programmes, it is shown again here that some students wanted OU programmes to be more instructional, described by one student as more "course based" or more "teaching". Most of them (7 students) pointed out that they wanted to be instructed directly throughout the programmes. The students in this group preferred to have learning objectives clearly stated at the beginning and the end of each programme. They wanted each programme to be summarized and they also wanted to be told how to apply theories they had learnt elsewhere into the programme material. It is not only that they could not see the link between programmes and material written in texts, they also did not know what to do with that connection.

Interestingly, five students suggested that OU material could be more "interactive". By being "interactive", they referred to two things. Three students believed that they, and students in general, could become active learners if they were stimulated by activities in texts or in broadcast material. The two other students favoured recorded material as they felt it allowed them to interact more with the material as they had more control over it.

Valuable assets of OU broadcasts from the students' point of view
Students were asked to write down what are, in their opinion, the most valuable assets of OU broadcasts. There were a total of 111

answers given by students. They mostly represented the characteristics of OU programmes as perceived by the students. The most valuable assets of OU programmes as described by students are as follows :

Table 5 : Valuable assets of OU broadcasts as described by students

<u>Number of students</u>	<u>Valuable assets</u>
45 (40.54%)	The programmes provide an alternative mode of learning.
19 (17.12%)	The programmes bring material to "life".
13 (11.71%)	The programmes motivate learning.
10 (9.01%)	The programmes provide new perspectives on the subject taught.
10 (9.01%)	The programmes can be recorded for revision purposes.
8 (7.21%)	The programmes make students feel less isolated.
6 (5.4%)	The programmes can be accessed by general public.
111 (100%)	

As with the findings of the question concerning students' perceptions of the characteristics of OU broadcasts, the majority of students (40.54%) appeared to be most impressed by the fact that OU programmes provided them with an alternative mode of learning. The most common explanation was that sometimes it was easier to learn things through a different medium than written texts. These students believed that learning texts with the help of another modality (audio/visual mode) enhanced learning.

The second most commonly mentioned asset was the ability of OU programmes to bring textual material to life. This answer was given by nineteen students or 17.12% of those volunteered. "Real-life situations" or case-study type material were commonly exemplified by students in this group.

The third group of 13 students (11.71%) revealed that OU programmes motivated them in learning. OU programmes were described by this group of students as informative, creative, interesting, and entertaining. For example, one student defined OU broadcasts as "a light entertaining, relaxing way to learn" (student 43). Because of this interest in the broadcasts, some students watched programmes that were unrelated to their subject areas.

OU programmes were appreciated in the following other ways. Ten students (9.01%) said that OU programmes were valuable since they provided students with new perspectives not covered in the texts. Another 10 students (9.01%) revealed that OU programmes could be recorded to use for reference or as revision for academic purposes. The latter could be interpreted in accordance with the findings mentioned earlier as a desire by students for recorded material to be provided by the University. Even though only a minority of students revealed their need for recorded material, this issue should not be ignored.

The desire of students for recorded material is probably related to one psychological issue : isolation in learning. Eight

students (7.21%) pointed this out when asked about the valuable assets of OU programmes. They felt that OU programmes gave isolated students an opportunity to be in touch with academics who have been part of the course. One student said that "You feel less isolated as a student. The programmes make you feel "linked" to other students, less alone" (OU student 91). The statement given below is one example of the comments regarding the value of broadcasts in relation to the isolation of distance learning :

"They provide a human presence which is good for distance learning students who do not have the benefit of daily face to face contact with lecturers and other students." (OU Student 60)

A final point that should be made here is that, according to the comments given, students did not view OU programmes as a source of academic material for them alone. The programmes were also regarded as a source of knowledge for the general public. Six students (5.4%) viewed OU programmes as "free education" which could be accessed by a general audience with a wide ability level.

Student expectations of OU broadcasts

Students were invited to give comments on the last question regarding their expectations of OU broadcasts. Ninety two students gave their opinions which are categorized in Table 6 found in the following page :

Table 6 : Student expectations of OU broadcasts

<u>Number of students</u>	<u>Expectations</u>
46 (50%)	The programmes would give broader understanding of the subject taught.
18 (19.57%)	The programmes would provide a wider range of experiences than that presented in the text.
16 (17.39%)	The programmes would be educating as well as entertaining.
6 (6.52%)	The programmes would integrate knowledge into the course as a whole.
3 (3.26%)	The programmes would provide example of practical application to real world.
3 (3.26%)	The programmes would be helpful for examinations or assignments.
92 (100%)	

Half of the expectations stated by students were, not surprisingly, that they expected OU broadcasts to help them understand the topic, by broadening their understanding, clarifying points made in the texts etc. In contrast to this first group, the second most stated expectation from students was to receive a "wider range of experience than that presented in texts". Unlike the first group of students, these students preferred programmes that gave them new perspectives on subject matter. A similar number of students (16 students or 17.39% of those volunteered) expected OU programmes to be informative as well as entertaining. Six students (6.52%) hoped that broadcasts would enable them to integrate knowledge gained from programmes and units into the course as a whole. Three students (3.26%) expected to learn practical applications of the subject by being

shown real world situations and the remaining 3 students (another 3.26%) expected to get help from broadcasts with examinations and assignments.

2. The contrasting responses of OU and STOU students

Perceptions of broadcasts

When attitudes of STOU students to STOU broadcasts were compared with attitudes of OU students towards OU broadcasts, some clear differences emerged. Firstly, none of the OU students felt that OU broadcasts only reiterated the content of the course texts, while this was the most common perception of STOU programmes among STOU students. Secondly, more than half of the OU students (67%) believed that OU programmes provided them with new perspectives on the subject compared with 13% of STOU students who felt the same way about STOU programmes. Nevertheless, one similarity between perceptions of OU and STOU students towards their broadcasts emerged from the survey. A great majority of students both in OU (72%) and STOU (56%) felt that the programmes aimed to reinforce the ideas presented in the texts. The differences are shown in table 7 :

Table 7 : Differences in OU and STOU students' attitudes of their broadcasts

<u>Broadcast characteristics</u>	<u>STOU</u>	<u>OU</u>
The programmes reiterate the course content presented in the text.	31	-
The programmes reinforce the ideas presented in the text.	56	72
The programmes provide new perspectives on the subject in the way that the course units do not.	13	67

It is worth mentioning here that both OU and STOU students were allowed to select more than one item that they thought best described the characteristics of their programmes. Most OU students selected two or more items, whereas, none of the STOU students chose more than one item to describe the characteristics of STOU programmes. The difference in the number of items OU and STOU students chose to describe their programmes illustrated the point that OU programmes may be characterised in several ways while STOU programmes are usually produced in one format only. Most OU students found OU programmes reinforced the texts by introducing new perspectives to students in thought-provoking ways, or occasionally by reiterating what had been said in the texts. STOU students only gave one characteristic of STOU programmes which was usually that they reinforced or reiterated texts. This finding is confirmed by research conducted by STOU in 1986 and by the results of the previous questionnaire survey in this study. STOU internal research revealed that STOU programmes were generally presented in one style and that students preferred the programmes to be presented in different formats (Saisamorn, 1986). The previous survey in the present study shows that STOU producers mainly use radio and television to summarize and clarify major concepts of the course. Although the two research studies were conducted at different periods (1986 and 1995), it is apparent that student perceptions towards STOU programmes have remained the same. This also implies that there has not been much change in STOU programme styles or characteristics. This point relates to the discussion from the previous survey concerning staff positions in the Office of

Educational Technology, STOU. It was pointed out that from 1986 until now, there have been only 3 producers recruited by STOU. The rest of the producers have been working in STOU for at least 10 years. That may help to explain why there has been no change in STOU programmes during the last ten years. The research conducted by Saisamorn in 1986 is the only study concerning the needs of STOU students in terms of programme styles and formats. Some of the student needs identified in 1986 are found to be similar to the needs of students today.

The major difference between the characteristics of OU and STOU programming is the "teaching function" of the programmes themselves. It is clear that STOU programmes aim at direct teaching while OU programmes are directed towards "guided discovery" which is more conducive to the development of thinking than direct teaching. The difference in teaching functions of OU and STOU programmes reflects attitude of learners in the two different cultures particularly towards education and media. The issue of culture will be examined later in chapter 7.

As the teaching strategy of "guided discovery" is rarely applied in STOU programmes, few STOU students have experience of programmes that provide new perspectives to them. Examples of STOU programmes that provide new perspectives on the subject are those which use dramatised forms. These programmes, however, are rarely produced in STOU. Most of the dramas are normally used to reconstruct some situations exemplified in the programmes. One STOU producer said that :

"I once produced a drama to support the subject of Law in which a person faced a problem that had to be solved by law. I chose the drama format because it explains the point in a much clearer way than a lecture can. However, I spent a lot of time on it with a very limited amount of money. I don't find it's worthwhile to make such an effort, so I've never done it again" (Interview, August 1994).

Apart from the need for qualified producers, money is a crucial factor in good quality programme production. According to STOU research concerning the cost of programme production in 1986, the most expensive programmes to be produced were "dramatizations" (Study of the cost of STOU programme production, 1986). This presumably is the reason why drama is rarely found in STOU programmes. It is not surprising therefore to learn from the previous research that interview based programmes were commonly used in STOU radio and television broadcasts. The same research revealed that compared to all other types of programmes those with interview formats cost the least.

At the end of the question concerning programme characteristics when students were invited to give examples or further explanation of their answer, none of the STOU students did so. One concludes from this that the characteristics of STOU programmes are so simple that there is no need for further explanation. It could also be said that STOU students did not show much enthusiasm about their programmes, whereas OU students generally expressed enthusiasm for OU programmes throughout the questionnaire. Again, this could be a result of cultural differences, since Thai students are modest when it comes to making critical comment, especially in an educational context.

Differences in perceptions of STOU and OU students towards the connection between broadcasts and course units

A majority of STOU students (72%) felt there was a strong connection between STOU programmes and course units. Another 23% felt that there was a very strong connection. The remaining 5% said that the connection was not very good. The differences in perceptions of STOU and OU students towards the connection between broadcasts and course units are shown below :

Table 8 : Differences in perceptions of STOU and OU students toward the connection between broadcasts and course units

<u>Connection between broadcasts and course units</u>	<u>STOU</u>	<u>OU</u>
Very strong connected	23	22
Well connected	72	62
Poorly connected	5	11

Of the five STOU students who considered that the connection was not very well good, three gave reasons. They are as follows :

"The presentation is not at all interesting. It looks as if programme presenters do not know which part of the course content they should talk about." (STOU 78)

"The main concepts of the material presented in the programmes are totally different from the ones written in texts." (STOU 92)

"Examples which are used in the programmes are sometimes unrelated to the course content. Explanations about the subject of the programmes are not clear enough." (STOU 94)

These comments indicate that even though STOU programmes just aim to summarize or reiterate the texts, course content can be sometimes misrepresented in the programmes. This could be explained by findings from the previous questionnaire survey.

According to that survey, almost all STOU producers had difficulties understanding the course content well enough to convert them into scripts. This difficulty partly results from their lack of background knowledge in the subject matter. Forty eight per cent of all STOU producers revealed that they relied heavily on the texts in order to make the scripts. This explains why STOU programmes are just a repetition of the textbooks and why the message in the programmes is not expressed in any depth. Another factor that prevents STOU programmes from having as much clear explanation as students might have expected is that of time limitation. To cover all aspects of the course in the 3 television and 10 radio programmes allocated to STOU courses, material presented in those programmes must be very brief and condensed. Even students who felt that programmes and course units were well connected complained about this. The most common complaint was that only the main concepts or a summary of the course was presented in the programmes without any examples or explanation given. It can be said therefore that a good connection between programmes and course units is not sufficient as a criterion for producing integrated educational programmes. Different needs in the learning styles of individuals should also be taken into account.

The fact that OU and STOU students in general found their programmes well connected to course units indicates that integration can mean different things. In the OU context, integration usually means conceptual links between broadcasts and course units. The strengths of each medium are carefully used

to reinforce certain teaching functions. In STOU, integration means repetition of the same message in two or three different media. This can be seen from STOU student comments on the connection between broadcasts and course units. Forty three students volunteered comments; most of them revealed that they considered programmes to be "well" and "very well" connected to units because the programmes repeated the same message written in the texts either by means of summarizing course content or clarifying the main concepts. The most important point is that students in OU and STOU were both satisfied with the level of media integration found in their course material.

Broadcast notes as a new idea introduced to STOU students

While broadcast notes play an important role in OU as supplementary material, they have never been used in STOU. However almost all STOU respondents (91%) declared that they would have liked to have broadcast notes to accompany programmes. Nine per cent of them, however, said that broadcast notes were not necessary because the material presented in STOU programmes was not too complex to understand. The following table shows the attitudes of STOU and OU students towards broadcast notes :

Table 9 : Attitudes of STOU and OU students towards broadcast notes

<u>Usefulness of broadcast notes</u>	<u>STOU</u>	<u>OU</u>
Useful	91	90
Not Useful	9	6

It is interesting then to ask why the majority of STOU respondents wanted to have broadcast notes. Among 73 students who volunteered comments on the subject of broadcast notes, 40 of them revealed that they needed them to enhance their understanding of the subject matter. They felt that broadcast notes could do that by summarizing key concepts or clarifying the points made in the programmes. Three students in this group admitted that sometimes they did not have enough time to read all the textbooks so that they preferred summary sheets in the form of broadcast notes.

Apart from the need for summary sheets, 24 students felt that broadcast notes would enable them to do some preparation before watching or listening to the programmes. Another 7 students said that broadcast notes would help them decide whether to watch or listen to only the programmes that interested them. Interestingly, the remaining 2 students made the point that broadcast notes should only clarify the points that are not presented in the textbooks, not just to summarize the points made in the programmes since those can be easily found in texts.

It is worth mentioning here that the needs of STOU students for broadcast notes reflect their style of learning. Those who wanted to see a summary of programmes in the broadcast notes, for example, simply wanted to use them as lecture notes. This is because they all know that a STOU programme is itself a good summary of the textbook. This assumption is confirmed by three statements of STOU students who revealed that broadcast notes

would reduce their time in taking notes from the programme (STOU 5, 56, 85). Another student suggested that broadcast notes could be used as hand-outs distributed in conventional lectures (STOU 30). This implies that for this student, STOU programmes are nothing but straight lectures.

Even though the content of STOU programmes is normally not too difficult to grasp, broadcast notes could be introduced as supplementary material. The notes can be used as a promotional vehicle for the broadcast as well as to encourage students to spend more time making use of broadcasts. It is important however that the notes should not be used as mere supplementary material to repeat the same message already presented in texts and broadcasts, even though this is what the students generally wanted.

Difficulties encountered by OU and STOU students with regard to broadcasts

When comparing the difficulties OU and STOU students had with their programmes, the results again reflect the characteristics of the programmes and the students' attitude towards them. Both OU and STOU students could select more than one difficulty from the items provided. They could also mention any further problems they faced. OU students gave 105 answers in total, compared with 115 from STOU students. In the following page, table 10 shows the difficulties with broadcasts indicated by STOU students and table 10.1 shows the differences between difficulties faced by STOU students and those given by OU students.

Table 10 : STOU students' difficulties with STOU broadcasts

<u>Number of students</u>	<u>Difficulties with STOU broadcasts</u>
9 (7.8%)	No difficulty
8 (7%)	The link between programmes and course units is not clear.
10 (8.7%)	The aim of the programmes is not clearly specified.
22 (19.1%)	Transmission time
30 (26.1%)	The programmes do not add anything significant to material covered in the written text.
36 (31.3%)	The content of the programmes is sometimes too difficult to understand.
115 (100%)	

Table 10.1 : Differences between difficulties faced by STOU and OU students

<u>Difficulties</u>	<u>STOU</u>	<u>OU</u>
The link between programmes and course units is not clear.	8	22
The content of the programmes is sometimes too difficult to understand.	36	14
The aim of the programmes is not clearly specified.	10	8
The programmes do not add anything significant to material covered in the written texts.	30	8
Transmission time is inconvenient.	22	21

It can be seen from the figure above that OU and STOU students have quite different perceptions of the difficulties they encounter with broadcasts. One third of OU students claimed that they had no difficulties with their broadcasts, compared with only 9 STOU students. The difficulty that was most commonly mentioned by OU students was the unclear linkage between

programmes and course units whereas this was the least common complaint of STOU students. On the other hand, almost one third of STOU respondents (30 students) felt that STOU programmes did not provide them with any new information; this item was chosen by the lowest number of OU students. A majority of STOU students (36 students) found the content of programmes was sometimes too difficult to understand, whilst only 14 OU students had problems understanding the content of their programmes. The only similar result found is that the aim of the programmes caused few problems for both OU and STOU students.

More interesting points emerge from the free responses of students describing other difficulties they have experienced. Most of the OU students' comments refer to the inappropriateness of transmission times. Only 6 out of 22 STOU students who gave free responses about their difficulties with STOU broadcasts mentioned that the transmission times of STOU broadcasts were inconvenient for them. Half of all difficulties stated by STOU respondents were concerned with the style and characteristics of the programmes themselves. Six of them found STOU programmes boring. They also complained about programme style which was too simple but very academically serious, and usually in the same style as a conventional lecture. One suggested that STOU programmes should be presented in more diverse styles to attract more students. Another five students were more concerned about the content of the programmes themselves. They felt that the content presented in STOU programmes was too easy, not detailed enough and too unclear. Of the remaining 5 students complained

that STOU programmes were too dated while one had problems tuning in to the appropriate radio wavelength.

It is clear from the free responses of students to this question that more STOU students have difficulties with the style and characteristics of STOU programmes than OU students have with theirs. There was also a great difference in the ways OU and STOU students felt about the difficulty of the content of the programmes themselves. Thirty six STOU students revealed that the content of the programme was sometimes too difficult to understand, compared with 14 OU students. This point also relates to the question concerning the level of background knowledge required to understand OU and STOU programmes. Only 7% of OU students, compared with 74% of STOU students, believed that some background knowledge of the subject was required to understand their programmes. Nineteen per cent of STOU students said that background knowledge was sometimes required and the remaining 7% felt that STOU programmes did not require any background knowledge. The answers from STOU students are confirmed by findings made elsewhere in this study and from some comments made by students themselves that the content of STOU programmes was generally a summary of the texts. It was also revealed that the programmes were sometimes not clear enough due to limitations of time and insufficient knowledge of producers on the subject. Thus, students have to rely heavily on texts in order to get a full explanation of material presented in the programmes.

Students were also asked to state ways in which STOU programmes could be improved. Eighty three per cent of STOU students said that they wanted to see an improvement in STOU programmes. A total of 98 suggestions were given. While most OU students suggested that OU programmes should be broadcast at more appropriate times and in a more updated style, almost all STOU students expressed a need for different programme styles. More than one-third (38 out of 98) of the comments suggested that STOU programmes should shift from lecture-type programmes to different styles to attract more students and the general public. Students in this group wanted to learn new things from the programmes or be shown examples from real life so that they could relate them to what is taught in the texts. Some of them observed that the content of the programmes was too superficial and directed towards surface learning only.

Less than one-fifth of students were satisfied with the present style of STOU and needed more explanation and clarification in the programmes. Nineteen students made this suggestion, making it the second most common recommendation. The third most common suggestion was that programmes should be updated (15 suggestions). Another 13 suggestions were given about the need for more broadcasts to be allocated to each course. The remainder (3) made complaints about technical problems of reception in certain areas.

The most important benefits of STOU broadcasts from the students' point of view

Eighty four students gave their comments on the most important benefits of STOU broadcasts. More than half of the STOU students who responded to this question (44 students) said that the most valuable asset of STOU programmes was that they aimed to reiterate or summarize important concepts written in the text. Twenty students found STOU programmes enhanced their understanding about the subject matter. Seven of them felt their knowledge increased after watching or listening to a programme.

When these opinions are compared with the attitudes of OU students towards the benefits of OU programmes, some important differences are found. While most of the OU students (45) found their programmes to be most valuable in providing an alternative mode of learning, only 6 STOU students said the same thing about their programmes. Three STOU students felt STOU programmes were most valuable as material presented in the programmes could be applied to real life. Another 3 students said that STOU programmes were valuable for the following reasons: they could be recorded for a revision purpose, they could be used to publicise the University, and they could be used as a form of learning guidance.

Student expectations of STOU programmes

Eighty seven STOU students wrote about their expectations of STOU programmes. The expectation most commonly expressed by STOU students (29 out of 87) was that programmes would be presented

in various forms and would be attractive and interesting. As previously mentioned, some students preferred STOU programmes to avoid formats that simply repeated information in the texts. Some students in this group also expected material in the programmes to be applicable to real-life situations.

In contrast to the first group, another 18 students said that they expected STOU programmes to adopt a certain style in which the texts were summarized and reiterated. Few students in this group expected that the programmes could help them pass the examinations and could be a substitute for tutorial sessions.

Another 16 students hoped that STOU programmes would enhance their understanding of the subject matter. Ten students had expected programmes to be broadcast at more convenient times. Three students wrote that they expected the programmes to be informative as well as entertaining. Another three said they hoped to increase their knowledge by watching and listening to the programmes. The rest of the STOU students had expected more guidance with the programmes, as in the form of printed notes.

3. Some conclusions

It is clear that students are of different types, and they learn in different ways. Some were sophisticated and skilled learners, while others had less developed learning skills, and some stuck to their previous experiences of traditional-style learning. In the OU, most of the programmes, according to respondents' opinion tended to be open-ended to allow students to practise their

skills in "discovery learning". Even though a majority of OU respondents appreciated and valued this type of programme, there were some students who preferred the programmes to incorporate more "direct-teaching". Similar differences between students were found in STOU respondents. STOU programmes are normally designed to provide students with the same information as presented in the texts. Even though STOU students have been brought up in Thai society where teaching is dominated by more traditional methods, more than one third of STOU respondents (38 out of 98) would have liked something other from STOU programmes than direct teaching-type programmes that merely summarize or reiterate the texts. They wanted to learn new things, and to relate what they had learnt to real-life situations. The different needs in student learning have been identified by a large number of research conducted in the OU. Koumi, for example, found that there were students who preferred "discovery learning" as well as students who preferred to be "told" what to learn (Koumi, 1975).

Differences in learning, therefore, should be taken into account when instructional materials are designed. The fact that students learn, or prefer to learn in different ways is not a major problem if this fact is understood and accepted by course designers. Problems occur when materials presented in programmes are designed with strong assumptions about the ways in which students learn, or should learn. It can be said that STOU programmes are made from the belief that its students learn best through rote memorization as a means of summarizing and

reiterating the texts. This assumption is obviously accumulated by the experience of traditional teaching in Thai culture that STOU educational technologists have encountered. Unfortunately, this assumption can cause a conflict within students themselves. It may indeed be safe to make an assumption that students learn by following traditional ways of learning in their own culture. However, learning in the context of distance education is exceptional. Firstly, distance education has its own educational philosophy which makes it different from any traditional mode of learning. Secondly, a majority of distance learners are adults whose educational needs are different from fresh school leavers.

It is common to find in the literature on adult education the assumption that all adults are autonomous, or self-directed (Candy, 1991). Consequently, instructional materials in distance education should be designed in ways that acknowledge the autonomy or self-direction of its adult learners. The design of learning materials appropriate for adult students is a very important issue here. Tough found that the programmes that violated principles of adult learning could block the motivation of adults to learn which could lead to their decision to drop out (Tough, 1979). Knowles also stated that it was important that the programmes could allow adult learners to exercise their self-directedness in learning :

"Adults have a self-concept of being responsible for their own decisions, for their own lives. Once they have arrived at that self-concept they develop a deep psychological need to be seen by others and treated by others as being capable of self-direction."

(Knowles, 1988 : 56)

Broadcast material, as an integral part of distance learning programmes plays an important role in increasing motivation in learning. Taking learning needs of adult learners into account, methods of instruction in distance learning programmes must emphasize and encourage self-direction. This could be done in a variety of ways. Candy suggests that there should not be too much information presented in the programme since it would lead to surface learning which is not a principle for self-direction (Candy, 1991). Brookfield believes that critical thinking is the basis of self-directed learning (Brookfield, 1987). It is then suggested that critical thinking should be encouraged by the methods of instruction adopted. Two methods are recommended as follows :

- Sensitively challenging old modes of thought and especially unqualified assertions.
- Reflecting back to learners and their attitudes, rationalizations, and habitual ways of thinking and acting so that they can see themselves from a different perspective; and providing an opportunity for reflective evaluation, a 'stock-taking' in the process of critical thinking.

(Ibid : 330)

In addition to the points described above, appropriate programmes for adult learners should be related to real-life situations.

As revealed by Knowles :

"In contrast to children's and youth's subject-centred orientation to learning, adults are life-centred (or task-centred, or problem-centred) in their orientation to learning. Adults are motivated to devote energy to learn something to the extent that they perceive that it will help them perform tasks or deal with problems that they confront in their life situation."

(Knowles, 1988 : 59)

According to Knowles' statement, therefore, the programme should put greater emphasis on problem-solving activities, or case studies of real-life situations that allow learners to develop their critical thinking and judgement about the learning materials. It is also affirmed that adults learn most effectively when knowledge is presented in the context of application to real-life situations (Ibid : 59).

All the recommendations stated in the above paragraphs appear to be supported by the comments of STOU respondents. The questionnaire results showed that there were some students in the survey who needed the programmes to provide them with new perspectives about the subject matter, not just repeating the texts. Some preferred the programmes with examples of real-life situations, and indeed some said that the content of STOU programmes was too superficial and directed towards surface learning. These students represent adult learners who prefer the educational process to coincide with the process of maturation. Treating autonomous learners as naive by providing them with inappropriate learning materials will on most occasions result in the person experiencing major blocks to learning, as previously mentioned.

It has been clearly accepted that autonomy and independence are important characteristics for distant learners. Many adults prefer distance study to other forms of learning because they feel that it makes them more independent (Holmberg, 1989 : 25). Apparently, adults choose distance education because it is

convenient, flexible and adaptable to their individual needs. Holmberg refers to an investigation by Geottert (1983), in which he reports on an interview study of more than 500 distance learners in Germany : "... These people saw themselves as more competitive, achievement-oriented and assertive than the average general population and student groups investigated" (Ibid : 24).

We are then in a position to conclude here that in distance learning the specific needs of adult learning is an issue that should not be neglected by course designers, and media producers. Both parties should ensure that students get the most from their learning. They should select learning media to adequately match the characteristics of their learners, who are, in the case of distance education, adult learners.

However, it has been argued that not all adults are ready to become self-directed learners. Candy refers to adult learners who prefer to be directly taught as "the victims of an educational system that has systematically deprived from them the opportunity to be self-directing" (Candy, 1991 : 375). There are some learners in distance education who expect to be treated as in the traditional way of schooling. These learners enter learning environments with expectations of a "passive" engagement in instructional courses. This includes young school leavers who are a small proportion, but important in most distance education programmes. In this case, learning can also be hindered if their expectations to be "taught" are not met in some way or other.

Moreover, there are a number of adult students who come back to education with limited academic skills, and in particular, lack the necessary skills for learning from media. They naturally view themselves as novices in the learning process. This group of adult learners are somehow estranged to education owing to two basic reasons. One reason is that they come back to education after having left school many years before. Another reason can be that some distance education institutions (such as the OU) require no academic qualification for entering their programmes. Consequently, learners with limited academic skills tend to be looking for fundamental knowledge, rather than focusing on the development of skills through an autonomous learning process. However, this does not mean that the learners should be left to remain in their traditional ways of learning. Guidance should be provided to help students achieve the learning goals of distance education. Examples of instructional programmes from STOU and OU are presented in chapter 8, to see how self-direction can and should be fostered throughout the course.

CHAPTER 7

DISCUSSION A : FACTORS INFLUENCING STOU INTEGRATED

MULTI-MEDIA SYSTEM

By now, it is fair to say that STOU has not yet made the best use of media. STOU has learnt, as emphasized before, that it was important to devise its own distinctive system in accordance with the socio-economic environment of the country. Even though STOU did not replicate the entire system of any distance learning institution, it has learnt from, and was influenced by the OU. Two members of the Planning Committee have become Directors of the Office of Educational Technology who initially designed the media system for STOU. Professor Pakdirat; one of the Planning Committee and the former Director in the Office of Educational Technology revealed how STOU has adopted their media system from the OU. As discussed earlier in chapter 4, STOU agreed to use print as a core medium, supplemented by audio-visual material including broadcasting programmes. The course team approach was totally replicated from the OU. The course team approach appears to work well in STOU if one looks at its success in terms of the output. STOU course teams have produced high quality textbooks that have been well accepted and used in conventional universities. Professor Pakdirat concluded here that :

"I should think that the STOU textbook is very effective in terms of integration. Each unit is well prepared and very well integrated to one another. Course content in STOU textbooks is integrated in an inter-disciplinary fashion which is very practically helpful for the learners. Unfortunately, integration between text and other media is not as successful as that even though many attempts have been taken." (Interview, June 1994)

When STOU was first established, several educational technologists and academics were sent to be trained at an educational broadcasting production workshop organized by the Institute of Educational Technology, OU. This implies that STOU once tried to train its academics to become producers as in the BBC/OU where qualified graduates were trained as producers working in academic areas familiar to them. Unfortunately, this idea did not work in STOU. The idea, however, proved to be successful, for example in Japanese educational broadcasting where persons with competence in specific fields were trained to be producers of programmes concerned with their own area of specialization. Professor Brahmawong, the first Director of the Office of Educational Technology in STOU, appeared to disagree with the idea. He pointed out that :

"Integrated multi-media production is truly the job of educational technologists because it requires knowledge and skill in using various kinds of media to their maximum potential in the educational context. The job cannot be fulfilled just by training academics to become producers." (Brahmawong, 1986 : 33)

Professor Brahmawong was concerned about the loss of "media integration" in course material if production work was in the hands of academics. He added that :

"If an academic was trained as a producer, it would be most likely that he or she would only become specialized in either radio or television but not both. But in an integrated multi-media system, we do need a person with expertise in both radio and television for the sake of effectiveness in the media integration process." (Ibid :33)

Integrated multi-media production is a complex system with many personnel and factors involved. Factors affecting the

effectiveness of the systems include 1) the understanding and the attitude of personnel to the concept of integrated multi-media, 2) the need for the policy that can best support the system, 3) the selection of appropriate media and, 4) the ways to gain maximum profit from the use of existing media. The following discussion focuses primarily on factors that influence the integrated multi-media system in STOU and the possibility for change in its system.

1. What is it, "integration" ?

Integration is not a term commonly used in any literature regarding education or media. It is, however, frequently found in the context of distance learning where a multi-media approach is often employed. Because of its limited use, the term "integration" is not clearly defined. Since integration is the outcome of a multi-media approach, reasons for using "multi-media" in the OU and STOU should first be examined in order to determine the meaning of integration in the context of both the OU and STOU.

The term "multi-media" was originally used by distance learning institutions to describe their mixed mode of delivering learning materials. Laurillard, Senior Lecturer at the Open University's Institute of Educational Technology, described "multi-media" as a means of using several media in the integrated delivery of a course (Laurillard, 1993a). She described the role of the multi-media approach in the following page :

"The point of a multi-media approach, combining television and print, is that the media work together, complementing each other and giving the student a more elaborated experience of the topic." (Laurillard, 1991b : 6)

In the OU context, it is most likely that multi-media has been adopted so that any weaknesses of one medium can be supplemented or replaced by the strengths of another. According to this approach, media play complementary roles to assist the process of learning.

At the other extreme, each medium in a multi-media system can compete with another medium to reach the same learning objectives. In this approach, various media are used for the sole purpose of providing a wider choice to the learners. This kind of media use is based on the belief that a medium that suits some learners may not suit others. If several media are combined, there is more chance that all learners will find their preferred ways of learning. In STOU, multi-media has been described as "a way in which each medium should be functionally equivalent.." (STOU, 1986). The following statement by Professor Brahmawong in 1992 reflects this approach :

"Multi-media packages are necessary because of the individual differences on the part of the students. Some students may be very successful reading from printed texts. Older people may find it more convenient to listen to lessons on audio-cassettes because of reading difficulties." (Brahmawong, 1992 : 4)

Related to this, Rowntree, a Professor at the Institute of Educational Technology, OU, revealed that :

"I knew an Open University economics teacher who made a point of saying what he wanted to say in his printed workbook, then saying it again in sound on the radio, and then saying it again with pictures on television." (Rowntree, 1992 :104)

This approach appears to be logical enough for the use of media to reach thousands of students, but would it be considered good enough in terms of media integration ? In a personal interview with Professor Rowntree, the author asked him about the meaning of integration. He said that, "... integration can mean anything that suits the learner's needs like one must tailor the dress to fit a particular measurement" (Interview, October 1994). The author got a different answer to the same question from Barbara Hodgeson, former head of the IET's Programme for Professional Development. She felt that repetition of the same message in different media was not integration. When the author asked her what she would call it, she replied : "I call it a waste of time and money" (Interview, October 1994).

Integration can really mean different things to different people, depending on the particular reasons for using several media (Lewis and Paine, 1986). Integrated course materials may be seen as just a means of transmitting the same message through different media as in the case of STOU. Or, they may be the product of carefully designed instructional programmes from institutions like the OU. It is important that students appreciate the level of media integration they find in their course material. It is probably true that integration can mean anything that suits the learners' need, as Rowntree said. The

evidence confirming this view emerges in the first questionnaire survey when students were asked to justify the level of media integration they had experienced in their courses. Even though OU and STOU course materials employ different kinds of integration, a majority of both OU and STOU found print and broadcasts well integrated.

The level of media integration in STOU course materials, however, was justified differently by a few STOU educational technologists and one of the former Directors in the Office of Educational Technology, STOU, himself. The former Director, Professor Pakdirat, claimed that integration between print and broadcasts had been a failure in the STOU context (Interview, June 1994). Two educational technologists revealed during the interviews conducted for this study that there was no policy of media integration at STOU (Interview, May 1994). Another educational technologist who was also a head of radio and television production in STOU commented as follows on this issue. She said that :

"The system we have now in STOU is not a truly integrated multi-media system because the message presented in television is also found in radio and texts. However, repetition is not a bad thing since it is one process of learning. Even so, the development of a truly integrated multi-media system should be encouraged in STOU for the sake of our students." (Interview, July 1994)

It is difficult to define here what is a "truly integrated multi-media system". However, from the questionnaire survey, almost half of STOU educational technologists (13 out of 31) expressed their desire for a truly integrated multi-media system. Some of

them felt that a lack of media integration at STOU occurred because academics do not give enough importance to other media apart from written texts. A few of them, including the present Director of the Office of Educational Technology commented that STOU tended to view audio-visual material and broadcasts as "supplementary", rather than "integrated" media. Consequently, the attitudes towards text as the main medium and broadcasts as a supplementary medium is reflected in the way broadcasts are produced. It has also been claimed that the "supplementary" role of broadcast media results in a less serious attitude to them by students.

The role of media in teaching at STOU was not determined by educational technologists, but laid down by officials. The guidelines regarding the use of media are stated in "The Manual on Writing Distance Learning Texts". This manual, accompanying the workshop "Techniques of Writing Distance Learning Texts" is normally given to all internal and external academics appointed to write the texts for STOU. All educational technologists are required to attend this workshop as well. In the manual, there is one section explaining how textbooks and other media should be integrated. It states briefly that radio and television should reinforce the text by presenting the main concepts of the text in television programmes, and expanding those concepts again in radio. The guidelines are strictly followed by STOU educational technologists as previously discussed in the section on the styles and formats used in OU and STOU programmes.

Even though, as mentioned earlier, a majority of STOU students found textbooks and broadcasts to be well integrated, this does not mean that they agree with the way STOU broadcasts are presented. It was shown in the questionnaire survey conducted in this study that one-third of STOU respondents who volunteered comments (29 out of 87) expected STOU programmes to be produced differently in a way that is more attractive and interesting. There were also a large number of STOU students expressing their desire for a shift from "summarized" and "reiterated" programmes to the programmes that provide them with new meaningful material.

An issue that relates very much to the styles and formats of STOU programmes is the policy regarding media allocation in STOU. As stated by the present Director of the Office of Educational Technology, STOU :

"The media allocation policy in STOU does not allow our educational technologists to use their skills in media design at all. Media are initially allocated and designed by the University. We need to revise that." (Interview, August 1994)

To revise the policy is to revise the media system itself. The Director revealed that there were plenty of problems in the STOU media system (Interview, August 1994). These resulted in a workshop conducted primarily to justify the present system of media use at STOU.

2. A call for a realistic change of the media system at STOU

Media integration has been widely discussed at STOU in the last few years. In a workshop concerned with the development of STOU

conducted in June 1993, the problem of media use particularly in terms of integrated media, was raised as one of the issues that needed to be addressed. Overall, the workshop participants decided that STOU did not use media in an appropriate way; and as a result, the media lacked integration and tended to repeat course material.

This shows that there is an awareness among STOU staff themselves that even though repetition of the message can be considered to be a kind of integration, it is not the perfect choice in an educational context. As a result of this realisation that media integration at STOU should be improved, a two-day workshop was held to discuss the possibility of reorganizing the STOU integrated multi-media system. The workshop was held at STOU in 1994 and a feasibility study was started two months after the workshop. Even though the results of this study have not been yet released, its objectives will be examined here.

The workshop was attended by the author; it comprised three groups of participants : members of the STOU Academic Senate, STOU academic staff, and STOU educational technologists. These three groups of people are directly involved in the development of the integrated multi-media system either in terms of policy-making, administration, or the actual production process. The objectives of the workshop were as follows :

1. To examine changes in educational technology and telecommunications that could be usefully applied to the STOU educational context,

2. To develop the use of instructional media in the STOU integrated multi-media system so as to make them more appropriate and efficient and,
3. To reorganize the STOU media system in order to make it more adaptable for the variety of courses provided.

(STOU, 1993 : 2)

During the two-day workshop, one of the main issues raised was whether it was practical and useful to have the same number of broadcasts allocated to every course. This complaint about standard allocation in the STOU media system was also raised in the seminar "Development of STOU in the Next Decade" in 1992. The following conclusion of the seminar reflected the view of both academics and educational technologists :

"Standard allocation which allows every course to have the same number of radio and television programmes makes persons involved in media design feel very uncomfortable. It is not useful at all because the nature of each course is different and each requires different kinds of resources."

(STOU, 1992 : 18)

This kind of "standard" allocation was once described by Bates in the following terms :

" It does seem ridiculous that each medium is expected to devote the same length of time to the same topic .. irrespective of the nature of the topic."

(Bates, 1970 : 4)

The Open University has other criteria for media allocation that allow the course team to determine the most appropriate use of each medium for instructional purposes. At the beginning of a course team meeting, the course team chairman and producer(s)

responsible for the course have to bid for broadcasting resources. The Broadcast Allocation Sub-Committee (known as Broadcast Sub-Committee) determines the suitability of the bids. Principally, the point of the broadcast bid is to argue the case that the requested broadcasting element is an integral and crucial part of the course. In 1971, six criteria were developed for the approval of broadcast bids. They were as follows :

- 1) The educational needs of the course.
- 2) Likely audience size.
- 3) Use made of broadcasting by students on similar courses.
- 4) Sales potential.
- 5) Whether experimental ways of integrating television with the other teaching components were to be attempted and,
- 6) The extent to which the broadcast material could be presented in other ways.

(Bates, 1974a : 4)

At foundation level, the University provides the same numbers of radio and television programmes for every course. After foundation courses, the number of broadcasting programmes required by each course is differentiated by the nature of the course. The standard allocation for any course not in foundation level is 8 radio and 8 television programmes. The bid can be rejected by the Committee if they feel it is inappropriate. Two examples are given below of comments from the Subcommittee about the rejection of particular bids. They show how "integration" is crucial in OU courses.

"The bid was criticized because the Subcommittee had not been satisfied that the programmes were an integral part of the course and had an illustrative role rather than an integral teaching function."

"The view that the style of the programmes was old-fashioned and that the content seemed purely descriptive; it was not clear how students would use the programme."

(Brown, 1982 : 9)

Despite the broadcast bid, the use of media in OU courses depends very much on media allocation. The OU does not have a standard pattern in the use of media. The mix of media used varies very much partly with the subject matter and partly with the approach of the course team. The number of broadcasts are decided before the start of the course development cycle. Once the number of broadcasts is fixed, course objectives can be designed to take advantage of the resources allocated (Hawkrige, 1973). It is, however, arguable that course objectives should always be worked out prior to media allocation.

Regardless of its weaknesses in adapting to the proper educational needs of each course, standard allocation is a convenient approach to fill the time slots obtained by national radio and television networks which, in turn, is an important factor determining the number of radio and television programmes allowed for the courses. In a majority of cases, the design of teaching materials for distance learning depends very much on the decision of policy makers. Decisions at this level can be called macro-decisions; these deal with the overall picture of the system such as what types of media are to be used and the number of programmes that are to be allocated. Micro-decisions are more concerned with the design of instructional materials. It appears that both OU and STOU are controlled by macro-decisions. OU producers together with the course team then work at a micro-decision level to examine whether or not they need the resources that have been allocated to them. STOU educational

technologists, on the other hand, are more limited in the media design process even at a micro-decision level.

In STOU, the types of media and the number of programmes in each course is allocated by the Academic Senate. The Academic Senate is the internal body responsible for the curriculum and teaching at the University. Realistically, standardization of media is useful for resource planning. However, it would not be harmful if the system allows producers or educational technologists to make their own decisions whether or not they want the resource allocated. Preventing media producers from making these decisions can result in a waste of money and time. One educational technologist in STOU said that :

"I was once responsible for the course in Mathematics. Like every other course, it was supplemented by 3 television and 10 radio programmes. I tried to propose to the Senate that the course did not need radio programmes, but it did not help. It was the rule that we had to follow."

(Interview, August 1994)

STOU should possibly consider revising not only its media system but also its policy regarding media allocation. With regards to media used, broadcasts will continue to be an important component at STOU. However, decision makers at STOU should reconsider the role of its broadcasts. A survey was conducted in 1994 at STOU regarding attitudes of academics in each school towards the use of media in distance education. The results indicated that every school considered print to be still the most important medium in distance learning courses. Radio and television were also rated as necessary media even though many schools felt that audio-cassettes and videos were preferable (Interview, August 1994).

According to the questionnaire survey, some STOU educational technologists thought that it would be more effective for students if STOU supplements shifted from broadcasts to recorded materials.

There has been an increasing trend recently towards the use of recorded materials in distance education. In the OU, Kirkwood predicted that in the near future the OU television material will be produced in two distinct formats, namely a broadcast format and a video format (Kirkwood, 1990). Even now, OU programmes appear to be used as recorded material by many students. According to the questionnaire survey, about 10% of the OU respondents recorded the programmes for revision purposes. Many of them also expressed a desire for programmes in the form of recorded material.

It is believed that recorded material allows students to have more control over their learning and that information presented in the programme can be more closely integrated with the text. For example, students can stop and start the programme when they are told to do so or when they feel like they need to know more information from the text. However, some producers at the OU have argued that broadcasts are more valuable than recorded material because of its ability to teach learners to think "on the run" ; which is an essential every day skill (Bates, 1984 : 212). Nevertheless, it is most likely that the shift from the use of television to video cannot occur quickly in STOU due to the fact that a large number of STOU students do not own a video

machine. On the other hand, it is possible that audiotape can be used in place of radio. In some STOU courses, audio-cassette is used as a summary of the course text. It can also be used in accompaniment with print in the form of audio-vision which allows the maximum use of integration. Audio-vision is a technique by which students learn by listening to the tape and, in synchronisation, explore related learning objects such maps, diagrams, or statistics. In this way instructors can guide students closely how to learn. Audiotape is cheap to make and remake. It is a medium which can be easily managed by the writer, without the need for the full intervention of media experts.

The academic's control over learning materials is also an important issue in producing material for multi-media courses. Many academics just drop out from being a part of programme production because they feel that they have no control over the media. The subject expert might be distanced from the students through having to work through intermediary producers or transformers who probably impose their own standards and requirements over the teaching materials.

Even though audio cassettes are not high technology, they can be used as effectively as, or even more effectively than, the more advanced technology. Technology and distance education are tied together to some extent. It is suggested that distance education would not exist without the use of technology (Garrison & Baynton, 1987). Over the past two decades, interest in distance

education has been increasingly oriented towards the use of advanced technologies and telecommunications. The OU has put a lot of effort into studying the potential of new technologies in distance education. However, Kirkwood in his paper about audio-visual media and new technologies at the service of distance education concluded as follows :

"I consider that developments in audio-visual media production for distance education should not be 'technology led', but should embrace the desire to enhance the educational effectiveness of teaching and learning."
(Kirkwood, 1991 : 5).

This implies that the design of learning materials is more important than the use of technologies themselves. Rowntree pointed out that in setting up a multi-media distance learning system, one should not go for a high technology or any powerful medium in the belief that it will automatically be more effective than a simpler one (Rowntree, 1994). Heinich's observations suggested that there were two different views about the role and function of educational technology (Heinich, 1982). On the one hand, technologies can be integrated to bring about changes in educational practice. On the other hand, the technologies are treated just as "tools" with little or no attention paid to their potential to contribute to effective teaching and learning. Heinich compared notions of television and overhead projector. He said that for some, the television system was seen as little different from the use of an overhead projector; and that notion reduced technology to the status of a "tool" (Ibid). Technology is naturally more powerful than a tool, if used properly. And,

it is the basic duty of the instructional designer to make proper use of the existing technology.

STOU is now coming into the age of new technology as well. Therefore it faces the question of how far it should go to adopt those new technologies for the purpose of education. According to the study conducted by STOU in 1994 regarding the need for media used in distance learning, most of the schools agreed that STOU should focus on existing available resources, instead of going only for high technology. Even though the University is now ready to apply new technologies such as computers in an educational context, students are still far behind in terms of accessibility. However, in the foreseeable future, STOU will have to accept the need for satellite communication. It is envisaged that the University will encounter the problem of limited air-time on the national networks, and broadcasts by satellite will provide a good alternative solution. Since STOU already has study centres throughout the country, students can be grouped together to watch the programmes via satellite. On the other hand, STOU has to consider the expense of new technology like satellite broadcasting. Obviously, it is very expensive to introduce new technologies into the system. More than 70% of the STOU budget comes from its own revenue received from student tuition fees. Therefore, higher expenses would also affect the tuition fees. As a result, STOU would probably have to face a higher rate of student drop-outs.

3. Three in one : being an educational technologist, producer, and academic in STOU

The educational technologist, producer, and academic are key persons directly involved in an integrated multi-media system. Each of them normally plays a different role in determining different aspects of the instructional material. Inglis said that when the term "educational technologists" was coined, there was no distinction made between those who made the most of media instructional and those who use the media for instructional purposes (Inglis, 1989). It is more acceptable now that instructional design is not another name for instructional media production. Similarly, the educational technologist is not merely a media producer. Nevertheless, these two terms are used interchangeably in STOU where educational technologists also act as producers. It is true that one person can perform more than one role, but that is often the basis of what Geoff called "identity crisis" (Geoff, 1989). The identity crisis in STOU can have impacts upon the work of those involved which directly affect the quality of programme output. Titles and status are important influences on the way a person perceives his or her own role (Ibid : 79).

In chapter 5, we have seen that educational technologists in STOU do not work only as producers but also as lecturers. Most of them, after working in STOU for a certain period of time, also gain academic status. So, one person can at the same time hold three titles and play three different roles namely : lecturer, educational technologist, and media producer. Basically, many

roles mean many responsibilities. With regard purely to production work, STOU educational technologists have to produce at least 12 hour-long programmes per year, compared with 6 at the OU (Koumi, 1994). In general, producing the programmes is the main responsibility of STOU educational technologists. But, as described also in chapter 5, any who also hold academic status have to occasionally be in charge of academic jobs such as tutorials, examinations or graduation ceremonies. Some are assigned to be unit authors. Moreover, they all have to produce radio and television programmes specially for the general public. Briefly, they have to produce two kinds of programmes : one to supplement STOU textbooks, another for the general public, as well as undertaking academic work when required. One STOU educational technologist revealed that "workload" had a major impact on the quality of the programmes (STOU ET 22).

Being responsible for many roles at the same time does not cause merely the problem of workload. It is likely that people can get confused about their career ambitions if they play different roles at the same time. Furthermore, the expertise required of a producer, an educational technologist, and a lecturer is very different in nature. It should be emphasized here again that one STOU producer suggested in the questionnaire that there should be a clear and distinct role for educational technologists and media producers. He added that "it doesn't mean that you can become a good producer just because you are a good educational technologist" (STOU ET 31). The conflict is even greater when he or she has to play the role of producer and academic lecturer

at the same time. This is basically because in general, producers and academics have a different perspective towards broadcasts. In the questionnaire survey producers tended to claim that academics did not have enough knowledge about media to make "good" programmes even with consultation with producers.

The definition of a "good" programme varies in different educational contexts. The identity crisis experienced by STOU educational technologists appears to create conflicting definitions of a "good" programme. This conflict is lessened in the BBC/OU producer's mind simply because the role of producer is totally distinct from the one of educational technologist and of academic. They might have to work together, but BBC/OU producers put their own value on the quality of the programmes. Also, each has career ambitions as a BBC producer. Apart from personal impressions of educational value, career ambition is believed to be another important factor influencing the success of educational programmes. As mentioned before, educational technologists can gain academic status by producing a certain number of programmes. The promotion criteria are based on quantity, not quality of the programmes they produced. It has been claimed therefore, that they produce the programmes to gain academic status rather than to pursue their career as producers. Another way of explaining career ambition is to identify what STOU educational technologists are working to achieve. In turn, this can also indicate the overall picture of the educational value they add to programmes. First of all, it should be remembered that most STOU educational technologists gain their

Master's degree from the school of educational technology which is a section of the Department of Education. Therefore, it could be said that they all have academic backgrounds in education, which consists of Thai traditional value. At work, they are all surrounded by others who have the same attitudes and values towards education. In this sense, these beliefs and values are even reinforced by the environment they are in. Their work, which is in this case programme production, is very much affected by their colleagues. Since they need to be accepted in the community they are in, they have to assume particular ways of doing things to get that acceptance. It is just like BBC/OU producers who are influenced by BBC professional ideology. The difference is STOU educational technologists are influenced more in pedagogy than professional production. This influence does not only come from their colleagues, but also from the educational values in Thai society. In this sense, culture has a lot to do with the ways STOU programmes have been produced. Culture can therefore be seen as the factor that has the greatest impact on the way STOU programmes are produced. As stated by Hargreaves :

"Various cultures provide a context in which particular strategies of teaching are developed, sustained and preferred over time." (Hargreaves, 1994 : 165)

Affected by their own culture, different educational technologists hence have different viewpoints on the teaching strategies they should apply with instructional material, according to their own educational and social beliefs and the

pressures to which they feel subjected. Wedemeyer confirmed this point by stating as follows :

"The actual technology - the hardware in each situation might be nearly identical; but socially, educationally, politically, economically, the uses of technology are widely different because of the cultural context surrounding the technological employment."

(Wedemeyer, 1981 : 104)

All technologies can be considered as vehicles that carry a message about the society that uses them. The technologies primarily serve the cultural values of a particular society. For this reason, the use of instructional media cannot be assessed without reference to the educational and cultural context in which the media serve.

4. Educational value in Thai society : an impact on STOU programmes: a reflection from STOU educational technologists and its students

There is a heavy reliance upon rote learning in Thai education. One of the common practices in Thai classrooms is chanting to memorize learning material. At the higher education level, traditional lectures are still delivered in a didactic fashion, and recall of this information is virtually demanded in examinations. It is also common in STOU examinations for almost all of the questions to be in a multiple choice format, evaluating students in terms of their ability to memorize. STOU programmes are also produced in response to that educational need.

As detailed in chapter 2, according to the context of education in Thailand, learning is believed to take place only in the classroom in a "teacher-centred" approach. Because of this "teacher-centred" approach, Thai students pay very high respect to teachers, who are supposed to be right at all times. It could be said that Thai students are spoonfed by straight-forward direct teaching. Group discussions or seminar workshops are rarely integrated into the Thai curriculum, even at higher education level. It could be said that textbooks are the only resource for Thai students. Most of the time, students are not required or encouraged to engage in outside reading. This is also reflected in STOU textbooks where suggestions for additional reading are hardly found in the units.

According to Thai educational values, a grading system is very important. For Thai students, a high or low grade could be the determining factor in finding a job. The majority of STOU students study at the university to gain a degree or certificate for job promotion. So, their performance in terms of grading is considered crucial. One of the pointers to this fact emerged in the questionnaire survey. More than half of STOU respondents felt that the part of STOU programmes they found to be most beneficial was a summary of important concepts presented in the texts. That summary is presumably useful for them at examination time.

Thai educational values are reflected not only in the ways students learn but also in the ways STOU educational

technologists work on the programmes. The educational technologists are normally in the course team which also consists of many academics from specialist areas. There is a possibility that some of the academics could have been their teachers from conventional universities, because STOU invites many outside academics to be course writers for its textbooks. Therefore the atmosphere in STOU course team meetings can be like the atmosphere of any traditional classroom where academics dominate the proceedings. So, an educational technologist coming into the course team without any background knowledge about the subject matter would most probably feel like a student searching for some key words from the lecturers or from the textbooks. This is confirmed by the results of the questionnaire surveys, where a large number of STOU educational technologists revealed that in order to write the scripts, they relied heavily on the textbooks. This is not the case in the OU where most BBC/OU producers depend more on extra knowledge or information from course writers and relevant experts. None of the BBC/OU respondents said that they used textbooks as a main source to write the scripts.

The title and status of STOU educational technologists also has an impact on the attitudes of students towards STOU broadcasts. STOU educational technologists also act as lecturers for students, as they are required to teach students in tutorial sessions. Some educational technologists write course units and design questions for examinations. Consequently, the programmes produced by STOU educational technologists are actually produced by the students' own lecturers, and as such, the programmes are

treated as outputs from the lecturers themselves. According to Thai traditional values as mentioned above in connection with teachers, lecturers are regarded with a great deal of respect and to complain about teaching strategy is considered as ungrateful to the teachers or lecturers. This might reveal why students always rated STOU broadcasts in questionnaires conducted by the STOU's Office of Educational Technology as a good resource for learning. It is worth noting here again that their answers to the questionnaire survey conducted for this study are more open. This is probably because the present survey is conducted by a researcher, not by the University itself.

The values and attitudes towards education and the ways students learn cannot be changed over a short period of time. However, innovation can be gradually introduced into the system. Students should be encouraged to become active learners for the sake of their education. Distance education can be the ideal environment to introduce this active approach to the students. To do this successfully, the attitudes of people involved in distance learning systems have to be changed first. In STOU, many lecturers have come from traditional universities. They still hold on to traditional ways of teaching and learning. However, it can be argued that academic tradition should not be regarded as an inflexible barrier to innovation. Distance education is seen as an educational innovation in Thailand. Its instructional environment is an ideal context in which to introduce non-traditional values of education to Thai society. Broadcasting is the most valuable resource for mass education. STOU has in

its hands the ability to broadcast educational programmes so it should use it in the most effective way. Laurillard, for example, described the unique values of broadcasting in the context of distance learning at the OU. She said :

"Broadcasting functions well in a distance learning course because it is a professional production, putting considerable resource into enhancing understanding, and it benefits from economics of scale; but it does have to be properly contextualised as part of an integrated course."
(Laurillard, 1991b : 6)

Radio and television are not easy media to use for education. The key word here is that they have to be used properly. Following that is the problem whether or not we are using them in the most proper way.

5. Internal factors affecting the media design process at STOU

Apart from role conflicts and the educational values of STOU educational technologists, there are other factors that have a major impact on the media design process as well as the quality of STOU programmes. As expertise is often described in terms of specialist qualifications, STOU seeks to recruit persons who have these "specialist qualifications" to work as its educational technologists.

As mentioned earlier, most STOU educational technologists felt that they did not have enough knowledge about the subject matter to write scripts for the programmes. This has resulted directly from STOU recruitment policy which selects persons who graduated in the field of educational technology, instead of persons who have sufficient background knowledge in the specific subject

area. It can be argued that it is essential for the educational technologists to have good understanding of the subject area they are working in.

It therefore follows that for producing an effective integrated multi-media course through the use of print and broadcasts, at least three kinds of specialist knowledge are required, namely : (1) knowledge about the subject matter, (2) expertise in the use of media and, (3) skill in combining knowledge about the subject and media technology into the educational context. The need for these three kinds of expertise can, in most cases, be catered for by a course team where three persons, specialized in three different areas, work together. Unfortunately, the course team approach does not always work efficiently especially when it comes to communication between producers and academics. It has become apparent that in many cases the course team approach can create more conflict than co-operation between members in the team. For practical reasons, producers, or educational technologists in the case of STOU, have to work on the programmes by themselves. This is why in reality, it is necessary for them to also have a good understanding about the subject matter to be taught through broadcast. The solution lies in either STOU revising its recruitment policy, or the working of the STOU course team needs to be slightly changed. It should be noted that a change in the course team system is a more likely possibility than a change in recruitment policy. Therefore, the following discussion will concentrate more on the issue of the course team, than that of recruitment policy.

When considering the job of the educational technologist, it can be further argued that knowledge, qualifications, and experience alone probably do not suffice. In an integrated multi-media system like STOU, the roles of educational technologists and subject specialists and the relationship between them are all crucial. In a case like this, personal factors such as ability to work in a team and ability to put forward and negotiate points should also be taken into account. Meacham revealed the following from his experience as a head in the Distance Education Resource Centre in Australia :

"Of all the qualities required.. I would place negotiating ability at the top, followed by knowledge of subject area and the knowledge of instructional design."
(Meacham, 1989 : 61)

Educational technologists need to negotiate especially if they want to introduce a new idea or ideas into the existing educational system. Logically, such an introduction will be better received if the academics feel they are working with enthusiastic and determined educational technologists rather than those who only want to complete their routine jobs. Any attempt to improve the design of broadcasting materials in STOU must take into account the concerns of the academics involved. Again, to do that, educational technologists should concentrate more on the media aspect; and they should have a considerable degree of freedom to design the learning package. It is fair to say that educational technologists in STOU course teams work under a "paternalistic system". They seem to have freedom to make any kind of decision concerning media, but actually their freedom is very limited. Their roles seem to be determined by the

University and they are discriminated against by the rest of the course team. Even though they hold academic status, there is still a big difference between professional academics and academics that get promoted from the Office of Educational Technology. Academics have long been sceptical of the abilities of educational technologists (Shrock 1985; Heinich 1984; Shaw and Taylor 1984). It is important to make this point, since conflict between academic and educational technologist is likely to occur because of a misguided perception of each other. Academics (particularly invited academics from outside who do not fully understand the system of STOU) are liable to have the perception that an educational technologist is assigned to the team to work as a technician whose job is at a level below that of an academic. It needs to be made clear that technical work is only a small part of the educational technologist's job, compared to the design of learning materials. In addition, it is likely that lack of subject-matter knowledge has often led to the educational technologists being relegated to technician status (Rowntree, 1988 : 250)

Rowntree revealed that there were four kinds of knowledge necessary for becoming an educational technologist. First of all, educational technologists must have "self-knowledge" to identify their role, status and responsibility. Secondly, educational technologists should be responsible for the outcome of their design. They should have "knowledge of value", preparing to justify their value as an 'educated person' not only as a technician. Thirdly, they should have "pedagogical

knowledge" which is the knowledge about teaching and learning process. Finally, it is important for educational technologists to have "subject-matter knowledge" of a subject or discipline in which they are working. Understanding the subject at hand would help educational technologists to be able to justify their instructional design in the most beneficial ways (Ibid : 251-254).

Because of some misguided perceptions about the role, status, and responsibility of educational technologists, there is a varied response toward the need for educational technologists throughout the distance education community. In some organizations, they play an essential role in developing effective course materials. Some have tried and rejected them, while others decided not to have them in the system at all. In the Open University, an educational technologist is no longer allocated to every course team as was the case before. We have discussed before that there are two major reasons for this. One is due to the growth in the number of course teams which has made it impossible to have one educational technologist in every course team. The second reason is that many course team members have gained a lot of experience in the production process, and feel they can produce programmes without the need for educational technologists. The latter probably reflects the perception of academics that educational technologists contribute less than academics who have been directly involved with teaching and learning themselves.

Nevertheless, STOU does still need an educational technologist in the course team; not only as a producer but importantly as a person who can, and has some authority to "negotiate" change in media design, as mentioned earlier. It is obviously impossible for educational technologists to have even a fair understanding of all subject matters. So, they should try to clarify their roles to the academics. For the most effective use of human resources in the course team, Bates suggested that it could be divided to two groups : those who are responsible for correspondence texts and those responsible for radio and television programmes (Bates, 1971c :4). This model appears to be a fair compromise for all the course team members. To apply the model to the educational context, it would be necessary to have "a middle person" to work as a link between these two groups. It would then be possible to assign one academic with a very good background knowledge of the subject, to work closely with the educational technologist, primarily on media issues. The assigned academic should be part of the course team, but should not be a course author. Otherwise, the same complaint that academics only spend time on printed material would be repeated.

Assigning a specific academic responsibility solely for broadcasts would also make academics realize the importance of broadcasts and induce them to spend more time on them. In the STOU course team, the issue of radio and television is always left for the discussion at the end of the course team process. This is in contrast to the OU course team where the choice of

media is discussed quite early in the process. Consequently, if the course team process runs out of time (which is often the case in STOU), the media issue is not discussed at all (Interview, August 1994). Discussion about the integration of texts and media is likewise almost impossible. Also, different sections of the learning material can be treated differently by different individuals. It is always beneficial to have several people involved in the course development, but it can result in inconsistencies when different people are responsible for different parts.

In STOU, once the course team process is completed, educational technologists take the drafts and work on them separately. Most of the time, they are already behind the production schedule because the course writers could not finish in time. It is not possible for educational technologists to work on scripts before the written drafts are completed by the course team because, again, they rely heavily on these drafts. It is likely that they also have to wait for the drafts of every unit because STOU programmes are intended to summarize the whole textbook. According to the questionnaire survey, a large number of STOU educational technologists blamed academics for taking too long to provide them with the written drafts.

The delay in the course team process prevents educational technologists from having enough time to produce effective scripts. It also causes problems of lack of time and equipment for the production of programmes. In STOU, the course team

process normally ends in June. After that, the production process begins. Even though the production can take place before the end of the course team process, this rarely happens. The educational technologist always waits until the end of course team process. Therefore, June is the busiest month for media production. It is referred to as the "production season" among STOU educational technologists. Because of that, a majority of them complained in the questionnaire survey that STOU did not have enough equipment for programme production although the STOU production centre is one of the best equipped centres among distance learning institutions in South-East Asia.

Hence, time planning is very important. Bates suggested that the schedule of print and programme production should be carefully synchronized in order to establish close integration. If both of them are started and finished at the same time, it is easier to make explicit links and relevant commentary (Bates, 1971c).

In practice, Bates' suggestion could possibly be followed, especially with the help of an academic assigned to work on media issues. This would be similar to what happens in the OU. BBC/OU producers know at the very beginning of the course development process of the topics they will have to deal with. They focus only on those topics and might even attend a course team meeting only when those topics are discussed. Consequently, they have more time to think about the subject matter and the production plan.

It is difficult to envisage successful integration when academics and educational technologists are not co-operating from the very early stages of the course team process. Procedures such as brainstorming are an important part of course and media integration. The use of media needs to be well planned in advance because once decisions have been made, and the production process starts, little can be done to change them and the problems can just be ignored. It should be remembered that the course team needs to spend more time on early planning to ensure ideas are clearly formulated and schedules accurately planned.

Apart from planning, the decision as to which message is carried by which medium is a complex one. It involves different criteria and different options, especially when the programmes are to be produced not only for the students, but also for wider range of audiences, namely the "general public".

6. Walking on a tight rope : producing programmes for two target groups

It is clear at both the OU and STOU produce programmes aimed at both students and the general public. Even though both universities claim that students are always the major target group and the public are a secondary consideration, there is no clear cut distinct between the requirements of the two groups. As a result, the intention of the programmes can be misinterpreted by either one of the groups. The style of production suitable for an instructional approach for registered

students may not appeal to the wider general audience and vice versa.

Katz and Wedell suggested that there should be a clear distinction between the two forms of educational broadcasting : "intensive" and "extensive" forms. Each of them focuses on different target groups and should be seen as the two extremes of a continuum. The intensive form of educational broadcasts programmes is produced for students who are acquiring a formal qualification as the intended target group. In contrast, the extensive programmes aim to encourage a greater understanding among general audiences. (Katz & Wedell, 1978) However, in practice the distinction between these two categories is often difficult to maintain. It depends as much on the value judgement of the producers as on the way in which the student uses the programmes. It is possible, after all, for students to regard a truly instructional programme as general service broadcasting. This is particularly the case of OU programmes in which a distinctive BBC approach has been very much adopted. This tendency is strengthened by two factors. One is the habit of regarding radio and television as "entertainment" or "leisure" media. The second point which has been already discussed is that students tend to perceive broadcasts as a minor component of the course, and take them less seriously.

The former factor has a greater impact on STOU than OU students. Even though broadcasts might not normally be taken seriously by OU students, at least they get familiar with the employment of

broadcasts in education to a greater extent than Thai students do. It is normal, for example, to see technology, such as computers in British classrooms, but not in Thai classrooms. This makes a difference in the way people from two different cultures perceive the role of technology in education. Despite the fact that most OU students do not experience the new generation of integrated technology at school themselves, its role in education is more practically acceptable. In addition, OU students have grown up with the educational ideology of the BBC as a public broadcasting service while public television broadcasting channels have only been introduced to Thailand in the last decade. The public broadcasting service in Thailand is unpopular and not widely accessible because of its requirement for special antennae. Hence, the idea to promote education through public broadcasts cannot yet be fully developed.

It has been claimed that the difference between BBC programmes for general audiences and those for OU students lies in the presentation of the programmes. For general audiences, the content of the programme is "retained as a general impression rather than a body of knowledge" (Crisell, 1986 : 107). For students, the programme contributes primarily to the growth of knowledge. Nevertheless, BBC/OU programmes are often very similar to BBC general broadcasts. This fact can be viewed in the way in which audiences use the programmes. Taylor indicated that there are three distinct audiences for BBC/OU programmes. They are described in the following page :

1) Students who receive the appropriate broadcasting and assignment calendar and course materials for the course or pack they are studying.

2) OU students who listen to or watch programmes for courses or packs other than their own, for which they have no schedules or support materials.

3) Members of the general public who listen to or watch OU programmes, but who are not currently OU students.

(Taylor, 1991 : 2)

It seems from the description above that the BBC/OU can produce one kind of programme for three distinct groups. The nature of the programme can be the same for each, but a distinct difference does exist in the way the programme is reviewed by each group. While the general public or any student interested in the broadcasts can watch or listen to OU programmes so as to be "intellectually" entertained, the registered students have to do this with more serious concern. This "serious concern" is the awareness that broadcast material is to some extent academically related to the course units. Integration with texts literally changes the attitude with which students may approach radio and television programmes from "entertainment" to "educational". Broadcast notes provide the link to make students approach broadcasts more seriously and take more regard of the educational aspect.

However, integration can be a double-sided sword. The more tightly integrated the media, the higher the risks of disrupting the students' learning style and reducing accessibility to the general public. Some students prefer to have a personal style in learning, not to be told what to do, how to think, or what to

read. It is a challenge for them, to have freedom in, and control over, their learning procedure. For the general public, it is obvious that they do not want to feel like students watching or listening to programmes that constantly refer back to course material or particular textbooks.

To some extent, it can be said that broadcast notes play an important role in making a distinction between the aim of broadcasts to serve students and the general public. In STOU, however, there is almost no apparent distinction between two. The policy with regard to the target audience that STOU educational technologists use to produce programmes is that 60% of the content is to serve students, and 40% is for the general public (Interview, August 1994). To do that, the presentation of subject matter given in the textbook is much simplified in order for the general public to understand it. One STOU educational technologist revealed that :

"The content of the programme must be simple and general so that the general public can understand it as well."
(Interview, August 1994)

As seen before, the content of STOU programmes is already superficial and simplified because of many factors such as the cultural value of educational technologists, their insufficient knowledge in the particular subject area of them, time constraints, and so on. For the general public, the content is made even simpler and more general. This approach, however, successfully reaches neither of the two target groups. The programmes can be appreciated by some students who are looking

for a summary sheet of the text, but not for those who prefer to be active learners. The programmes can even have a negative effect on the learning process of the former, and on the attitude towards broadcasts of the latter. If students appreciate a programme that summarizes the textbook, the text itself could be ignored. Evidence for this found in the questionnaire responses showed that some STOU students use programmes as a replacement for the textbook; they simply review the main concepts of the text using programmes as an aid for revision. On the other hand, there were a large number of STOU students who complained that the content of the programmes was too simple. This is a direct result of the policy of STOU educational technologists to simplify the actual content for the general public. But since STOU programmes are fully integrated to the textbooks for the purpose of reiteration, they could be also considered as giving too much "direct-teaching" for the general public.

A few of the STOU educational technologists showed some concern about the effectiveness of STOU programmes in the questionnaire survey. They revealed that STOU students seemed to get fewer benefits from the programmes since they had to be produced to serve the general public as well. The policy of producing programmes to serve both students and the general public overlaps with the policy of providing academic services to society. To serve the latter, STOU regularly produce radio and television series to serve the public interest in the areas of culture, music, law, health, and the environment. Most of these programmes, which are produced in a documentary-style, have

proved to be successful both in terms of education and entertainment.

The two different types of programmes, those produced for both students and the general public, and those purely for the public illustrate how Thai society views the way education should be presented. Thais tend to believe that knowledge comes from textbooks, and good student programmes should represent as far as possible the message presented in the texts. Even though programmes that are produced purely for the public could also be a valuable source of information for students, they are not considered as such. This is simply because these programmes do not contain the exact words or message presented in the textbooks. Presenting merely the "direct message" in the programmes prevents students from developing their skills in learning. This reflects the Thai traditional belief that "learning itself is not so important as the receiving of a certificate, since the latter is the passport to higher status" (Buripakdi & Mahakhan, 1980 : 266).

It can be argued that the policy to produce programmes primarily for students but also to serve the general public by simplifying the content of the programmes devalues the academic message of the programme and discredits the use of educational broadcasting for the general public. STOU could adopt the same approach that has been used for producing the programmes for the general public to the programmes produced for students. To do this, a new kind of integration would be used in the programmes and the programmes

themselves would, as a result of this, put more emphasis on learning than on teaching. The impact of media integration on learning will be discussed together with analysis of two selected programmes from STOU and the OU in the following chapter.

CHAPTER 8

DISCUSSION B : INTEGRATED MULTI-MEDIA AS A MEANS TO ENHANCE SELF-LEARNING

Following on from the discussion of factors affecting media integration in OU and STOU courses, this chapter will examine the way in which integration has been employed in two selected courses at the OU and STOU. Since the main aim of this study concerns media integration, these two selected programmes are not analyzed in terms of quality in programme production or course content. The discussion will to some extent examine the style or method of presentation of the radio and television programmes accompanying the courses.

1. D213 and ST 26405 : examples of two selected course from STOU and OU

The two selected courses for discussion are D213 : "Understanding Modern Societies" from the OU and 26405 : "Distance Education" from STOU (hereafter referred to as D213 and ST 26405). The content of these two courses is different in nature. D213 is a course in "Social Science" whilst ST 26405 is a course in "Education". D213 first started in 1992, and ST 26405 in 1991. One of the objectives for analyzing these courses is to gain an understanding of the present trends in programme production. It also had to be possible for the author to get in touch with the course team academics and programme producers responsible for the courses.

D213 and ST 26405 are similar in that both of them are not courses for new students. D213 is a full credit, second-level course and ST 26405 is a course designed for second year students. Even though both of them do not require previous knowledge of the subject, some background in particular courses is considered useful.

The structures of ST 26405 and D213 differ in accordance with the difference in the academic structure of the OU and STOU. ST 26405 is divided into 15 units, all of which are integrated into one course block. In STOU, one course (which is equal to one block) normally consists of 15 units. By contrast, D213 consists of 30 chapters which are presented in the form of four course books. The course itself is divided into six course blocks. D213 requires 32 weeks of study, compared with 15 study weeks for ST 26405. Both courses are accompanied by radio and television programmes. ST 26405 incorporates 3 television and 10 radio programmes. D213 has 8 radio programmes, 8 television programmes and another 6 associated items of learning materials. Each of D213 associated learning materials will be reviewed, and their roles regarding integration examined.

Associated learning materials and their role in facilitating self-learning

While the STOU course consists only of textbooks and radio and television programmes, D213 also provides students with six other associated learning materials. They are shown in the following page :

1. The Course Guide

The D213 Course Guide is a booklet providing general information about the course and outlining its content and objectives. The other course materials are introduced and explained in terms of how they interrelate.

...it describes how the course works and how to study it in order to get the most out of it; it outlines the assessment strategy (written assignment and exam); and it suggests ways of organizing your study time'.
(D213 Course Guide, 1992 : 4)

In order to familiarize themselves with the course, students are advised to read through the course guide before starting their study work. Apart from providing an overall picture of the course, it also informs the students what they are expected to do during their study time. Rough approximations of the study time needed for each item of material are calculated as follows :

- 1) One chapter : eight to ten hours
- 2) Book introductions : one to two hours
- 3) One television programme : one hour per 25-minute programme, including preparation
- 4) One radio programme : one hour per 20-minute programme, including preparation
- 5) One audiocassette : one-and-a-half hours per 30-minute cassette, including repetition and notes
- 6) One TMA (tutor-marked assignment) : six hours

2. The Study Guide

The Study Guide is provided to give an overview of each course book. Each book is accompanied by one study guide. It briefly describes what a particular course book is about. It also shows the structure of each chapter as well as a checklist of main points, concepts and theories for the students. In addition,

some of the key questions arising from the chapter are given.
The Study Guide is organized in three parts as shown :

- Part 1 : an overall introduction to a particular book
- Part 2 : a week by week, chapter by chapter commentary
- Part 3 : guidance on the written assignment

Part 1 of the Study Guide is to be read by students before they study the course book. Notes and a commentary on each chapter are given in Part 2. It is suggested that these are studied one by one, along with the relevant chapter from the book indicated for that particular week. Part 3 is more concerned with giving direct suggestions and recommendations about students' written assignments.

3. The Audio-Visual Booklet

The Audio-Visual Booklet or Broadcast Notes contain useful back-up information relevant to the audiocassettes, and the radio and television programmes for the course. In order to make full use of OU broadcasts, students are expected to read the relevant audio-visual booklet before listening to or viewing each particular programme.

4. Assignment Booklets

The Assignment Booklet contains TMAs to be undertaken at certain points in the course. It provides also advice and guidance on how to work on each assignment.

5. Audiocassettes

D213 course books are accompanied by four audiocassettes (eight sides). Students are recommended to listen to the cassette before working on each block of the course. The relation between the cassettes and the blocks and the books are as follows :

Audiocassette 1 :		
Side 1	Introduction	
Side 2	Block 1	Book 1
Audiocassette 2 :		
Side 1	Block 2	Book 2
Side 2	Block 3	Book 2
Audiocassette 3 :		
Side 1	Block 4	Book 3
Side 2	Block 5	Book 4
Audiocassette 4 :		
Side 1	Block 6	Book 4
Side 2	Revision	-

6. Recommended Reference Books

There are two reference books recommended for D213. One is 'The Penguin Dictionary of Sociology'. It is intended to be used as a reference to explain or simplify new sociological concepts or major sociological theories introduced in the text. This is to provide additional information to learners.

Students are also strongly recommended to make use of 'The Good Study Guide'. This book is widely used by OU students as a guideline to help them practise and develop study skills in essay writing, note-taking, working with audio-visual materials, preparing for examinations and so on.

The various kinds of associated materials used in D213 are intended to complement its textbooks, its broadcasts and its activities. Nevertheless, all of these associated materials have one specific role in common which is to explicate how various components and activities are integrated to form a whole course. The course guide, study guides, and audiocassettes play more or less the same role which is to describe the overall course structure and its relation to other course components. The role is the same, but the presentation is different. This could be considered as a form of integration by means of transmitting the same message through three different kinds of preparatory material. If students do not have access to the course guide, they can always find the intended message in either the study guide or the audiocassettes.

One very valuable source of information provided for D213 and other OU courses is the recommended time organization. This is a rough study plan to advise students how much time they should allocate to each component in each study week. In addition to this week-by-week plan which can be found in the study guide, a "Broadcast and Assignment Calendar" is also sent to students at the beginning of the course.

The week-by-week study plan and the Broadcast and Assignment Calendar both help students to be "on schedule" for the course. Many new students come to distance learning without knowing how to manage their own study time. Of these new students, many get behind schedule so the synchronization between text and the other

course components is lost. This is particularly true in the case of broadcasts that need to be watched or listened to at the right time for the "perceived relevance" to be as high as possible. In order for this to be the case, D213 students are told in advance both in the broadcast notes and the calendar which chapters in the textbooks they need to read in preparation for watching or listening to a particular programme. In contrast, STOU students have to work and organize their study time on their own. This can be very problematic for them if they have fallen behind the schedule and cannot manage to get back into the system.

Another component that is important in terms of time management is the assignment. A well-planned assignment schedule can effectively reduce the risk of students falling behind in their studies. Regular and well-planned submission dates for assignments provide a source of discipline for students, and also help them understand the task demands or requirements of the course. The assignment also has an important role as an integrated part of the course. The integrative approach of D213 and ST 26405 will be analyzed later in the discussion.

Broadcasts accompanying D213 and ST 26405

As mentioned earlier D213 is accompanied by 8 radio and 8 television programmes while ST 26405 has 10 radio and 3 television programmes. In addition, there are also 4 audiocassettes provided for D213.

Due to the policy of "standard allocation", ST 26405 automatically has the same number of broadcasts as other courses in STOU. Early in the development of the D213 course, a bid was submitted for 8 radio programmes, 8 television programmes, 4 audiocassettes and 1 video. In the event, the course received all the broadcasts requested, but no video.

The D213 broadcast bids were submitted before the actual process of course development. The content of some programmes proposed in the bids was eventually changed because the objectives of the course and the programmes became clearer during the process of course development. Another factor that can result in a change in programme content is the budget. Bram Gieben, former course manager revealed that :

"Once the money is allocated, it has to be used very carefully. For example, the team can produce one television programme in a very expensive way as long as another programme is cheaper." (Interview, October 1992)

Prior to the allocation of money, one of the television programmes proposed in the bid was rejected by the Committee because of the reduced budget. The fourth television programme proposed to explore the issue of "globalization of production" and a request was submitted to present it as a case study of some companies in Taiwan and Singapore. The Committee questioned whether or not it was necessary to go to Asia to make the programme. The three other television programmes were being produced in California therefore the fourth programme was also to be produced in California in using one of the largest electronics firms in the United States for the case study. The

programme follows the same outline and objectives that were proposed in the bid, it is just the location that was changed from Southeast Asia to the USA. In relation to this, Gieben commented as follows :

"D213 television programmes have been produced within a very limited budget. The producer tries to combine historical footage, and interesting clips, together with new film with voice over. A lot of materials that have been available in the studio and that have gone on other OU programmes before are exploited to save money." (Interview, October 1992)

TV1, TV2 and TV6 are examples of programmes with a wide range of visual material. TV 1 employs still pictures throughout the programmes to explain an intellectual movement such as the development of an idea of the "philosophes". TV2 uses visual sources such as maps, engravings, woodcutting and paintings to explore one major theme of the course : how "Europe" came to be aware of and to incorporate "Non-European" people and societies. Both TV1 and TV2 follow very closely the exposition and argument of material presented in the books. TV1 is relevant to chapter 1 of book 1, and TV2 is associated with chapter 6 of book 1. The function of both of the programmes is to "teach by visual" means as Alison Tucker, the producer of these two programmes explained (Interview, November 1992). As with TV1 and TV2, TV6 uses some photographic and filmic extracts to illustrate the main themes of the chapter to which it relates. The difference between TV6 and the former two television programmes is that the aim of TV6 is not to narrate material presented in the book, but to supplement the literary examples.

TV1 and TV2 make use of the characteristics of the television medium to show historical documents in visual terms. Even though the programmes directly follow the same material presented in the text, they do not merely reiterate or summarize it. Koumi, BBC/OU senior producer, revealed that the narrative form was a good presentation style especially when the aim of the programme was to tell a story (Koumi, 1991). After "telling a story" about historical invasions by European people and in particular the discovery of the new world, TV2 adds at the end of the programme film footage from a BBC documentary programme. The footage relates to the subject matter of TV2 in that it presents an example of how native and minority groups of people in America and Australia reacted to the cultural invasion by "white men" when they were "discovered" by them. The programme ends with a commentary that is designed to provoke the students into thinking about the subject because the example shown provides a contradictory viewpoint to that described in the text as well as in the programme itself.

The fifth D213 television programme also makes use of actual BBC documentary footage. TV 5 presents a whole programme from the "Everyman" BBC documentary series. It was chosen to be shown to students not only because the content of the programme was relevant to the course material but also because it contains critical comment and can be analyzed by using the theories learnt in the text (Interview, November 1992). Students are also encouraged to use material presented in the programme for their assignment.

Television is also used in the D213 course to present case studies. As mentioned earlier, TV4 employs a case study format. This format is also used in TV3 and TV7. TV3 is mainly concerned with the issue of democracy and democratization processes which are discussed in chapter 1 of book 2. Instead of dictating a series of information on democracy and democratization, the programme examines how the process of democratization occurred in Poland. The social and political changes in Poland are also described in the book, and the programme provides further material to emphasise that point, by showing real-life situations of people living in Poland during the period of transition. Three Polish families are interviewed about their perception of the change and its impact on them.

TV7 also provides students with case-study material. Examining "Global popular culture", the programme focuses on the Hollywood film and TV industry and one local radio station in Hollywood. The programme presents two examples intertwining "global" and "local" culture which is an essential ingredient of cultural globalization and is the main theme of the book. Again, students can see real-life situations and relate them to the information learnt in the book. One major characteristic of case-study material presented in the programmes is that it enables students to analyze a situation by using principles or criteria established in the text.

The final television programme of the course is TV8. It provides a portrait of Los Angeles as an example of a post-modern city

which is the main theme of the final part of the course. The programme incorporates real-life situations : seeking opinions from people about the place they live in, showing some key sites and lifestyles, and interviewing some academics there who have also made a contribution to the course. TV8 is an example of a television programme that substitutes for a field visit and can illustrate abstract principles or ideas. Los Angeles is often cited in arguments presented in the course book. To bring students there is to provide them with a visual example to supplement the literary one found in the book. To illustrate an abstract idea, the programme takes students to the Bonaventure Hotel in Los Angeles. This hotel is described in the course book in terms of its interior which represents the idea of post-modernity. Since the idea is new, unusual, and abstract, it is important for students to understand it in terms of a real, illustrated example (Interview, November 1992). Furthermore, the programme presents the negative aspects of Los Angeles such as crime, drugs and violence as a contrast to its modernity.

The D213 radio programmes are not as varied in terms of format as the television programmes. The first radio programme (R1) in the course acts as an introduction, providing students with some background to pre-modern society. It does so by commenting on historical processes through a selection of extracts from the work of leading historians of the early modern period. The presenter, an academic specializing in pre-modern society, provides a commentary before each extract is read by an actor, and a summary at the end of the programme.

Radio 2 (R2), Radio 3 (R3), Radio 4 (R4), Radio 5 (R5) and Radio 6 (R6) are presented in the format of an interview. Even though all of them are in the interview format, they are presented in different styles. R2, R3 and R6 are in the form of an interview between a member of the D213 course team and another academic in the field relating to the main theme of the programme. It should be noted here that almost all interviewees invited for these programmes are not authors of the course texts. Only one interviewee has written an article which is used as an associated part of the text. In this respect, radio programmes bring to students the views and knowledge of eminent people who can condense into an interview the essential points of an argument, and these are often different from those presented in the text or which otherwise can be complex or lengthy if presented in written form. Alison, D213 producer, expressed this point as follows :

"Radio is used when you want to hear two or three sociologists sharing their different views of sociology. You don't need to see these people because there is nothing visual about what they say .. they are talking theories. However, you want to hear their voices because they are important people in the field." (Interview, November 1992)

Apart from interviewing leading figures whose work is relevant to the course material, two D213 radio programmes present interviews with individuals in certain characteristic settings to show what happens in real-life situations. R4 consists of interviews with a number of people who migrated from the Caribbean and Asian subcontinent. The interview is about their early experience of work and conditions of life in Britain. The aim of the programme is to relate some personal experience to an

analysis regarding the issue of "Migrant Workers and Division of Labour" which is presented in the book. The programme does not provide any conclusion or judgement for students, but allows them to analyze this "primary source material" by themselves.

In a similar format to R4, R5 presents the voices of a varied group of women talking about their experiences of shopping and consumption. Each account is then analyzed by two social scientists who are invited onto the programme. The discussion relates to the sections on "Women and the domestic sphere" and "Consumption and lifestyles" presented in the book. Again, this provides students with a selection of sources to analyze.

The final type of D213 radio programme uses a discussion format and is employed in R7 and R8. Discussion programmes differ from the interview programmes mentioned earlier in that they involve more than two people. They provide students with a condensed argument to reinforce the points made in the text as well as to provide an alternative viewpoint.

In contrast to D213 radio and television programmes, those of ST 26405 are much simpler to describe due to the lack of variety in format and style of presentation. Three television and 10 radio programmes are presented during the 15 week course. Radio programmes are broadcast on a regular basis over most of the course, so that one radio programme is provided almost every single week. On the other hand, television programmes cannot be shown every week. The timing of television broadcasts very much

depends upon the slots available during the period of the course. The impact of this was apparent in the questionnaire survey when some STOU students complained about the inconsistency of transmission times of STOU television programmes. Unlike OU broadcasts, in which the transmission time corresponds with the associated written unit, STOU broadcasts are not synchronised in this way.

Ensuring the appropriate timing of broadcasts in relation to other course components is a necessary factor for "integration". The lack of synchronization between broadcasts and texts in ST 26405 is reviewed later to see how it reduces the level of integration.

The formats and presentation style adopted by ST 26405 are examined here. As mentioned before, STOU programmes are meant to cover all written units presented in the textbooks. This is indeed the case for ST 26405. Ten radio programmes are produced to cover 10 written units. Of the remaining 5 written units that are not presented in radio programmes, four are covered by the 3 television programmes. Hence there is one written unit that is not presented in any of the radio or television programmes. This is Unit 5, namely "The management of distance education in developing countries in Asia". This unit mainly discusses how systems of distance education are organized and managed in selected countries in Asia. Various kinds of distance learning systems in Malaysia, Indonesia, Philippines, India, Pakistan, Sri-lanka, China, and Vietnam are exemplified in the unit. ST

26405 educational technologist and producer, Chanida Pitaksarid explained the reason she decided not to present Unit 5 in either radio or television programmes :

"The unit mainly talks about the systems in different countries. It is necessary for students to see real examples from these countries to understand the main theme of the unit. However, this is impossible because we do not have any film footage about those countries. And it is no sense to talk about those countries via radio, since visual images are needed to portray the examples."

(Interview, August 1993)

Film footage is frequently used in ST 26405's first two television programmes : TV1 and TV2. This is mainly because of budget limitations. All three television programmes were produced in a studio but, where possible, relevant footage was inserted.

With the exception of two radio programmes that each cover two written units, ST 26405 radio programmes are produced on the basis of one programme per written unit. It is interesting that the message presented in radio programmes is also repeated in television programmes. In other words, the main themes of the television programmes are the same as those given in some radio programmes.

In ST 26405, TV1 covers the same message that is presented in the first radio programme. The main difference between the two media is that the information presented on radio is much more detailed and condensed than that shown on television. A similar situation is found with TV2, in which the same message is given in Radio

7. The reasons for this were explained by the producer of ST 26405 as follows :

"TV1 and Radio 1 are meant to emphasize the major concept of the whole course, which is the "philosophy of distance education". So this point is stressed both in radio and television programmes. Similarly, TV2 and Radio 7 focus on media employment and technology in distance education. We consider this is to be an important issue. So we put it in both radio and television programmes. We use television in this case because it is necessary for students to see the use of new technology such as computers and ISDN.
(Interview, August 1994)

TV1 and TV2 are characterised as documentary. TV1 is narrated by a presenter with a lot of film footage inserted. Footage from the Open University and the University of the Air in Japan is used to show two examples of distance learning institutions. The systems of both universities are also exemplified in considerable detail in unit 6 of the text, namely "The management of distance education in developed countries". We have already commented before that this unit could not be produced as a television programme because there is no relevant film footage available. Therefore, the availability of resources is one of the major factors that affects the style and format of a programme or even whether a programme can be produced.

TV2 consists of lectures by two STOU academics who specialize in multi-media systems in distance education. Film footage is inserted in between the talking. The content of both TV1 and TV2 is the same as that presented in the relevant units in the text, but it is simply and more loosely structured.

TV3 comprises an interview with the founder of STOU, an expert in distance education by the programme presenter. The interview is conducted in a semi-structured style which allows the interviewee to freely express his own opinion. TV3 is different from TV1 and TV2 in that the programme does not directly summarize and reiterate the relevant units. It does, however, cover information given in three units of the written text. The interviewer poses questions which represent the main concepts of each unit. Since there is a lot of material to cover, the content of the programme is very general and unfocused. Despite this, TV3 is valuable because it provides students with the view of an expert in the particular field. The programme finishes by inserting film footage showing students expressing their opinions about STOU. Unlike TV2 of D213 that uses film footage to contrast with the material presented in the programme, the footage of ST 26405 is used to support one of the points made in the programme.

With regards to radio, all radio programmes produced for ST 26405 have the same pattern of presentation. They all adopt a lecture-type style and are delivered by one or two academics in an interview format. The academic that authored a particular unit also writes the script for the relevant programme. As a result of this, the material presented in radio programmes is really just another version of the material presented in the text. The main concepts of each unit are summarized and covered in radio programmes.

As mentioned before, some D213 radio programmes are also presented in interview format, with two academics talking through the programme (R2 and R3). Even though these two examples can be considered as lecture-type programmes like all of the ST 26405 radio programmes, there are two major differences between them. Firstly, D213 radio presents only one theme in the programme while ST 26405 radio covers all the main points presented in the text. Secondly, academics who present material for D213 radio are not the same academics who write the associate texts, while those who present ST 26405 radio material also write the relevant units. This directly affects the viewpoints presented in the programme. An academic who is not directly involved with producing the texts tends to present his or her own points of view, which could be different from those written in the text. In contrast, academics who present radio material for ST 26405 tend to just repeat the same points or even the same wording they used before when writing the text. Furthermore, it is noticeable that interviewers in D213 radio programmes are academics responsible for the relevant written units but interviewers in ST 26405 radio programmes are professional programme presenters who are not at all involved in the course. This makes a difference to the programme in that the latter can just pose prewritten questions to the interviewee, while the former can lead the interview into another academic debate or argument due to his or her own expertise in the subject field. Evidence for this emerged from Bram Gieben who revealed that :

"In D213, there is one radio programme being produced through telephone; to ask the point of view of one expert about a particular subject within 22 minutes. Some of its television programmes are filmed in Los Angeles where some

academics who write the units and know best about the subject are living." (Interview, October 1992)

Again, this is possible in D213 largely because it has a greater budget and wider resources available than ST 26405. This is primarily due to the difference in the structure of each production system. STOU employs the system of "in-house production" while the OU production system is based on its partnership with the BBC. This results in a great difference in the budget available which allows the latter to produce a high quality product. BBC/OU programmes in general often include overseas filming, expensive graphics or animation, complex and originally designed physical models. All models and diagrams are produced by the graphics department at the BBC. This effort is made not only for OU students, but also for commercial purposes since all the programmes are available for sale. In contrast, STOU programmes are produced with a very limited budget. The costs of production have to be within the university budget and are therefore tightly controlled. Broadcasts are always underfunded, and given a lower priority than printed material or other academic activities. As discussed earlier, STOU educational technologists have a tendency to primarily take on the role and responsibility of academics, rather than producers. As a consequence, there is academic control over broadcasts as opposed to OU programmes whose final editorial control depends upon the BBC.

It has been discussed before how the "BBC" brand affects the general format and style of OU programmes and how educational

attitudes shape those of STOU programmes. In addition to this, it appears that BBC/OU producers and STOU educational technologists employ different strategies for integration, not only in terms of integration between various media but also integration within a whole course. In the next section this point will be examined in terms of the two courses, D213 and ST 26405.

2. Integration revisited

It appears that in STOU courses, integration can be found between texts and broadcasts in a repetitive, summarizing manner. Even if this kind of integration works and is accepted in the educational context of STOU, it is argued that integration should also facilitate learning in two other ways. Firstly, it should help students learn effectively by themselves using the distance learning system. Secondly, it should promote skills in learning which is the challenge and aim of any educational system.

Integration as a means to facilitate learning

As seen before, ST 26405 has only broadcasts supporting printed material while D213 has various components to achieve this aim. All of the components support and integrate with one another. Basically, each of them acts as a guide to give suggestions to students about how to organize their study time and what to study. If students study in a sequential order, they always find that all components are to some extent integrated. Even if students do not read any of these components, they can still find

how course material is integrated in the "Broadcast and Assignment Calendar".

The calendar primarily shows the transmission times of each broadcast and the date each assignment is due. It also shows which part of the course material is relevant to each broadcast and assignment. Poorly timed broadcasts in relation to other components would result in a lack of integration. In the case of OU, it is very important for students to be informed about the linkage between broadcasts and other course components. This is because most of the time, material presented in OU programmes is different from that presented in the text. Often, the programmes approach the same material presented in the text from a different direction, or bring additional evidence to be analyzed by students using principles taught in the text. For the students to do that, they require prior knowledge from the course material itself. They are informed about the necessary prior knowledge through broadcast notes and the calendar. The material related to each assignment is also given in the calendar as well as in the "Assignment Booklet". The assignment does not only enable students to check their understanding of course material, but also helps them organise their pace of study. A well-planned assessment schedule can reduce the risk of students falling behind in their studies.

ST 26405 and other STOU courses do not provide students with any component to tell them which part of the course relates to broadcasts. In ST 26405, the transmission time of each broadcast

is not relevant to the study of course material that students should follow each week. To give a clearer idea, the following table shows the transmission dates of ST 26405 programmes and the students' study weeks.

Table 11 : ST 26405 transmission dates in relation to students' study weeks

<u>Date</u>	<u>Unit</u>	<u>Television</u>	<u>Radio</u>
20 Feb	1	TV1 (Units 1, 6)	R1 (Unit 1)
27 Feb	2	-	R2 (Unit 2)
6 Mar	3	-	R3 (Units 3,4)
13 Mar	4	-	R4 (Unit 7)
20 Mar	5	-	R5 (Units 8, 9)
27 Mar	6	-	R6 (Unit 10)
3 Apr	7	TV 2 (Unit 11)	R7 (Unit 11)
10 Apr	8	-	R8 (Unit 13)
17 Apr	9	-	R9 (Unit 14)
24 Apr	10	TV 3 (Units 12-15)	R10 (Unit 15)
1 Jun	11	-	-
8 Jun	12	-	-
15 Jun	13	-	-
22 Jun	14	-	-
29 Jun	15	-	-

The table above illustrates the study schedule that students have to follow. In STOU, there are 15 study weeks for one semester. Students are recommended to study one unit per week. One radio programme, and sometimes a television programme as well, are provided in most weeks. However, most of the ST 26405 programmes

are not broadcast in the same week as their associated unit. A synchronization between units and broadcasts are found only in weeks 1, 2 and 3 when students are supposed to study unit 1, 2, 3 and are supported by Radio 1, Radio 2, Radio 3 and TV1 all of which relate to each unit respectively. After that, however, the timing of the broadcasts runs ahead of the study units. For example, in week 7 when students are supposed to study unit 7, both radio and television programmes provided for that week closely relate to unit 11. In the last 5 weeks of the study, students have no supplementary material provided for them at all.

This is an example of the lack of integration between the timing of broadcasts and students' study schedule which affects the sequence of the learning process. Students are left to make the connection between broadcasts and texts by themselves. They also have to organize their study time without any guidance. Time organization and management is a crucial factor for distant learners. Many students start distance learning courses without any experience of managing their own study time and they often need guidance in this respect. Students might easily drop out from the course just because they do not know how to manage their study time.

One major aspect of self-instructional materials in distance education is the support they may give to the learner. Based on this feature, distance learners can become more autonomous and more self-directed through the development of self-regulated learning cognition. In addition, the quality of self-

instructional materials is considered decisive in the development of successful distance education programmes. The attitude of the learner toward a distance education course determines the level of student participation in the distance learning process. Greater satisfaction can be achieved if instructional strategies are incorporated to provide an effective source of student support. As a supportive component, organization in time management might sound unimportant but it is in fact considered one of the most important "higher-order learning skills" (Candy, 1991) and these are skills that should be promoted through distance learning.

Integration as a means to promote self-directed learning : a perspective from OU and STOU courses

It has been discussed above how media can be integrated to facilitate learning. Examples of media integration employed in STOU and OU courses represent the following two types : integration by means of transmitting the same message through different media, and that of making use of the strength of each particular medium to support and reinforce each another. Integration as a means of educational effectiveness would be unlikely to occur if the programmes were viewed by students as "a source of information" rather than a "resource for the development of learning skills". In a search for "good integration", one should not aim only at the question of : how media can be integrated and fitted into a coherent course. It is also important to understand the proper role of integration with regard to its potential to support and develop students'

skills in learning. Learning skills, where appropriate, must be made an explicit goal of a course, and integrated into other learning tasks required in the course as a whole.

According to Candy, there are two kinds of learning skills that generally need to be developed : 1) general learning skills such as listening, reading, note taking, questioning, information seeking etc. and, 2) skills that are particularly central to self-directed efforts such as time management, critical thinking, goal setting, and problem solving (Candy, 1991). It is the latter in particular which have been the traditional concern of distance education and which should be enhanced and developed as an integral part of the course (Moore, 1986). As Kirkwood observes :

"You shouldn't only consider the content or form of the teaching when trying to select which medium to use, the kind of learning skills to be developed must also be considered."
(Kirkwood, 1994 : 70)

In the same article, Kirkwood points out that certain media are better than others in terms of their potential to develop learning skills (Ibid). Olson and Bruner argue that knowledge of facts, ideas, opinions and principles can be taught through any medium, but learning skills such as analysis and problem solving can be developed by combination of the right choice of medium (Olson and Bruner, 1974). This is the case of ST 26405 which use print, radio, and television for transmitting the same message. The producer of the programmes revealed that :

"In the case of ST 26405, radio and television is not necessary for the course. Text is actually enough to transfer such a theoretical message. If I had the choice,

I would use audio cassette rather than broadcasts for the course." (Interview, August, 1993)

The paragraph stated in the previous page implies here again that media in STOU are sometimes used simply because of the availability even though there is no need for using them particularly when the purpose of teaching is purely for knowledge acquisition. Even though knowledge is a basic requirement in any form of education, it has been argued that one could not separate knowledge to be learned from the situations in which it is used (Laurillard, 1993a). In other words, acquisition of knowledge is of no use if students cannot apply it. And, to apply knowledge means developing learning skills.

It has been said that general learning skills are more easily taught than skills in self-directed learning. This is because general learning skills can be taught through any curricular content. It must be linked in with the learning process together with course-related information. In practice, this can best be done through a combination of knowledge provided in regular course content and learning activities in which cognitive performance is required.

Taking D213 as an example, all information and knowledge about the subject matter required for the course is provided in the textbooks. Students can gain knowledge and information if they study the textbooks. Radio and television programmes provided for the course do not actually give them any more information than is provided in the textbooks. The programmes, however,

provide students with opportunities to practise learning skills by applying what they have learnt to materials presented in the programmes in different ways.

As mentioned earlier, integration should make it possible for students to develop their learning skills. In D213, it is the intention of the course team that "... as far as possible, skills and content should be integrated and any artificial boundaries be avoided" (D213 teaching objectives and strategy). The development of learning skills for D213 is stated as one objective of the course. The aim is :

"To develop the skills of argument, presentation, analysis of data, conceptualization and theorizing initiated in D102 and D103 and thus to support students through the transition to more independent styles of undergraduate learning"
(D213 course proposal, N.D.)

It is not only broadcast material that provides students with opportunities to develop their learning skills, but also a variety of other materials. This involves a choice of extracts and other articles and the incorporation of a range of learning activities. Moreover, assessment strategy is integrated into the learning process. Seven TMAs are designed not only to determine the pacing of materials covered, but also to develop their learning skills. Raggatt points out that assessment is "a key feature in distance learning" (Raggatt, 1994 : 138). Assessment can be designed in a simple form for students just to check their existing knowledge. It can be designed as a tool in developing higher-order learning skills. TMAs of D213 are in the form of essays. There are no computer-marked assignments for the course.

The role of the D213 assignment is described in its course guide as follows :

"The main emphasis in the assignment strategy is on encouraging students not to repeat the detail of the empirical material in the chapters but to organize material into an argument in relation to a specific question or statement"

(D213 course guide, 1992 : 27)

One of the skills students need to develop in doing TMAs is the selection of relevant illustrative material from the text and its associated readings. Students are also encouraged to use material presented in broadcast programmes in TMA essays and exam answers. If students draw on broadcast material in assignments and exam papers, they will be "rewarded". On the other hand, students will obtain fewer marks for using the material from textbooks for their answers. This is considered also as a way of convincing students to make use of OU broadcasts and to develop their "critical thinking" which is a significant determinant of likely success in self-directed learning.

In order for adults to be able to succeed in self-directed learning endeavors, it would seem to be vital for them to have or to develop the capability to think logically, critically, and analytically about the subject they are learning. Again, this means that students should have opportunities to develop and practise capability in critical thinking by analyzing learning material.

Doing assignments does not only provide students with opportunities to practise skills in critical thinking and

analyzing, but also helps students to practise their skills in integrating knowledge. The "integration of knowledge" rests on the belief that knowledge should not be learned in isolation but needs to be related to other knowledge. Therefore, subject matter needs to be learnt in integrated wholes not just in small separate pieces (Gibbs, 1992). In D213, students are encouraged to integrate knowledge gained from various sources to write the essays. It appears that from the outset, considerable time and planning has gone into integrating the programmes with the teaching objectives of the course as part of an overall strategy for the development of learning skills. The intention of providing the programmes as a resource for skill development has been affirmed also by the D213 producer who revealed that :

"We don't have an exact rule and format to produce the programme. But, the only thing we really have to work on is .. what students need to know, what are teaching objectives .. how students can use programme materials to develop their learning skills .. and that's the starting point." (Interview, November 1992)

D213 audio-visual materials are not meant to be used separately from other components to complete the assignment. It is advisable for students to integrate knowledge from various sources into their assigned essays. Students are required to work on the selection and presentation of materials, and building through the demand for exposition and comparison to critical discussion and the construction of a case for a particular conclusion (D213 course proposal, N.D.). For each assignment, there is some guidance on how to use various sources of information. Examples of three assignments and their guidance are shown in the following page :

TMA D213 05 : How have social factors affected changes in gender roles and attitudes to sexuality in western societies since the 1960s?

Notes to students : The main materials for answering this TMA are to be found in Helen Crowley's Chapter 2 ("Women and the domestic sphere") of Book 3, and in Chapter 5, "The body and sexuality", by Jeffrey Weeks . You could also draw upon relevant material from the other chapters in Book 3 which discuss the social - that is chapter 1,3 and 4
** You may also draw upon material about attitudes to sexuality which are discussed in TV5, "Just an illness".

TMA D213 06 (Option 1) : Describe some of the more influential sociological theories of the role of education in modern society and discuss how they might account for the recent programme of "conservative modernization" in English education.

Notes to students : The material for answering this question is to be found in Geoff Whitty's Chapter 6, "Education, economy and national culture", in Book 3. You might also follow up Whitty's references to Bourdieu's ideas by listening to the interview with Bourdieu on Audiocassette 3, Side 2.

Whitty's discussion of the main sociological theories about education is to be found in Section 2 of his chapter, and there are some examples of the theories in Reading A,B and C.

TMA D213 06 (Option 2) : Are there still some cultural bonds acting as a kind of "cement" to varying degrees in modern society ? What might they be and how could they have such effects ?

Notes to students : The main resource for answering this question is Ken Thompson's Chapter 7, "Religion, values and ideology", in Book 3. However, you might also wish to refer to the discussion of education and national culture in Geoff Whitty's Chapter 6, the role of the mass media and popular culture as discussed by Celia Lury in Chapter 8, and Radio Programme 6 on "Popular culture".

(D213 TMA Assignments, 1992)

From the examples above, one can see that the course team encourages students to use material from various sources in their TMA responses. It is shown again that material presented in audio-visual components can be applied in course material. TV 5 is a good example here. As discussed before, TV5 was originally produced for "Everyman". The programme is focused on AIDS as an illness and people's reaction to it. Illnesses in

historical times such as VD, TB and cancer induced similar cycles of public response to that currently experienced in relation to AIDS. The programme draws on the depiction of the plague in western literature, the work of a particular American writer and critic (as found in Chapter 4, Book 3), and the views of churchmen, homosexuals and people infected with HIV, or who are involved with the treatment and support of those infected.

TV 5 appears to be a good exercise for students to relate what they have learnt in the course to actual daily instances. However, it can be seen just as an interesting story unless it is perceived by students as a source for skill development. The D213 course proposal shows that D213 aims to develop student skills enabling them to relate theories to the real world :

"A major concern will be to ensure that students not only have the means of forming judgements on conceptual issues but can deploy them in application to "real world" societies and reflect on the relation between theory and the world in which they live." (D213 Course Proposal, N.D.)

While D213 television is used to illustrate processes through "real world" examples, one function of the radio and audio cassette is to present the views of eminent people. Essential points of an argument or opinion can be provided for students to integrate into the knowledge they have learnt elsewhere in the course. Apart from audio visual material, extracts from classic and contemporary books and articles are provided at the end of the chapter in which they are discussed. Readings are considered as a crucial part of integrated knowledge of the course. Skills in handling primary texts are required to be developed in

conjunction with practice in the readings (D213 Course Guide, 1992). It is stated that :

"The aim is to get you (students) accustomed to turning direct from certain key points in the argument to one of the major authors who has written about the subject which is being developed"

(D213 Audio Cassette 1, Side 2)

It is not necessary to use information from all sources to produce TMA answers. However, in every case, integration of knowledge is required. It has been suggested that the number of points presented in a TMA essay is not as important as the way those points are integrated (D213 Audio Cassette 2, Side 2). Even though the answer can be found in a particular chapter, it is recommended that material presented in different chapters is used in a well-integrated manner. These are, according to Gibbs, "interdisciplinary approaches" which contribute to a well structured knowledge base (Gibbs, 1992 : 10). Gibbs also revealed that appropriate course design, teaching methods and assessment can foster a deep approach and vice versa. (Ibid).

Unlike OU students, STOU students are not encouraged to exercise a deep approach in learning. Most STOU courses do not require students to submit any assignment. All courses, however, provide learning activities in the form of questions together with given feedback inserted at the end of each sub-unit in the text. The objective of these questions is to enable students to check the result of their work by themselves. Even though it has been agreed that the activities should cover various levels of the cognitive domain, many of these activities are still at the level

of fact-memorising. Furthermore, it is unlikely that students would finish the activities since they are not assessed. This is due to the assumption that students tend to undervalue or even denigrate the material if their work on the material is not assessed or accredited (Laurillard, 1991b).

With regard to the style of teaching through broadcasts, it has been agreed by a great majority of STOU respondents that STOU programmes are aimed at summarizing or reiterating the content of the course text. The perception of students to learning has a direct influence on the way they learn. As Ramsden suggests : "what constitutes an approach to learning, surface or deep, varies according to the academic task" (Ramsden, 1992 : 64). In other words, students can never be trained to use the deep approach when the educational environment is giving them the message that surface learning is good enough to be rewarded. Even though some of the students are intellectually mature enough to become self-directed learners, this capability is undermined by lack of opportunities to practise and express their learning outcome. According to this argument, the clarification of the assignment goal can be considered as another tool to improve skills in learning. To provide students with guidance in learning is no bad thing, it is to be clear and fair about what is expected from the students. For instance, D213 students should be clear from the guidance provided for their TMA assignments that deep approach learning and skills in integrating knowledge from various sources are required from them.

Another factor that makes it difficult, or even impossible, for STOU students to practise their learning skills is the style and presentation of STOU programmes themselves. STOU tends to summarize a large number of ideas presented in the texts, but at a more superficial level where a deep analysis is not required. The analysis is more possible when a single type of content is presented in the programme. Furthermore, to promote self-directed learning, the programme should focus on the exploration of key concepts and principles rather than on a detailed knowledge of every topic.

It should be noted at this point that even though students are given opportunities to practise skills in self-directed learning, one cannot assume that all students are yet ready to move into that process. Candy, for example, challenges the assumptions about adult learners which have been made by many teachers that they are self-directed by nature (Candy, 1991). Since adult learners have different experiences in learning, some could be discouraged to engage in self-directed learning by their experiences of traditional learning at school. It is suggested then that instructors should not "get off the hook" simply by handing over responsibility to learners, but rather help them become comfortable in handling self-directed learning by providing them also with assistance. As a matter of fact, more guidance or help should be given in an educational mode that moves away from traditional teaching. A mode with no or little explicit guidance should be used only when the learners are

familiar with the material and have enough skills required. As observed by Candy :

"The pedagogical justification for learner autonomy is that adults demonstrably learn more and more effectively, when they are consulted about dimensions such as the pace, sequence, mode of instruction and even the content to be studied."

(Ibid : 75)

Only when learners become familiar with the academic expectations being made of them, can such guidance be gradually reduced. D213 TMA strategy, for example, is designed to progressively develop learning skills throughout the course. This is stated in the D213 assessment strategy :

"The capacity to use a range of diverse learning materials in preparing to answer a TMA will be provided by a first 'dry run' formative TMA.

Thereafter TMA questions, student and tutor notes and other materials will be graded to introduce and test, progressively more sophisticated discursive, analytic and critical skills. Towards the end, students will be offered the opportunity, in relation to the 'present trends/contemporary debates' part of the course, to write at more extended length on a key course theme, or to discuss a piece of research."

(D213 Course Proposal, N.D.)

For the most effective outcome, skills in learning should be seen as a "continuing process" which is to be addressed throughout the course being studied, and onwards through the degree. The continuing process of skill development does not apply only in TMA strategy, but is also stated in teaching objectives of the course as follows :

"D213 adopts a developmental approach to learning skills. It is designed to take students progressively through the study skills required at second level and deliver them, towards the end of the course, as more independent learners

well capable of tackling third level courses. To achieve this the course will build on the study skills introduced at foundation level and progress them further."
(D213 Teaching Objectives and Strategy, N.D.)

According to the paragraph above, skills required for D213 develop from the course D103. D103 is a foundation course which students are recommended to take before D213. In the course of studying D103, students begin to develop basic skills which fall into the following categories :

1. Studentship skills such as "getting started", organising time, where to study, being a student etc.
2. Study skills such as reading, note taking, essay writing, numerical skills, learning from radio and TV, revision and exam strategies.
3. Academic skills which develop from the study of the course materials itself such as the ability to abstract, summarise, analyze, evaluate, compare and contrast and deal with theory and model building.

(Ibid)

Unlike D213, D103 does not focus on integration of knowledge from different sources. Students get started at this foundation level by developing "general learning skills". Lewis pointed out about the OU's foundation course materials that students were just shown how a particular discipline was divided up into loosely-related and overlapping topics, and how these topics were handled by various experts in the field (Lewis, 1978a : 307). He also mentioned that at this level, various facts and phenomena and procedures were given to students who were expected to simply recall and feed back at the end-of-course examination (Ibid).

Skills in analysis are not emphasized in D103. One indicator for this is the requirement for TMA essays. Within each unit, there

are "summaries" which help students with their essays. It is advisable for students to look over those summaries before writing their assignments. With regard to media, some D103 radio programmes are also designed to help students complete the assignments. This is a method to help students learn from broadcasts.

For D103, a few books on the main topics of each unit are suggested for further reading. However, they are entirely optional suggestions. Students are asked to read suggested books only when they wish to study some topics in greater depth, or only when they complete the actual course. This is because "reading" requires advanced skills of analysis and skills of integrating what is read to the main body of knowledge. To be able to integrate knowledge means that higher levels of learning skills have already been developed. And, this is probably the most effective outcome of "integration" in an educational context.

CHAPTER 9

CONCLUSION

Distance educators in the early 1970s were particularly interested in the effective use of audio-visual material as well as broadcast media and tried to make the best use of media for teaching. Compared with 20 years ago, they have now many new media to choose from. However, audio-visual material and broadcast media still play an important role in many distance learning institutions.

Radio and television programmes are meant to serve as an integral part of distance learning courses. The choice of medium is important, but only a part of the course design process. Media should be looked at in accordance with teaching and learning strategies. Media should not be employed only with respect to course content, but also to course objectives and to develop desired learning outcomes.

This study underlines the belief that we should apply the scope and possibilities of self-directed learning in order to make progress in distance education. As observed by Holmberg, a theoretical consideration relevant to distance education is "tantamount to insisting that education does not only serve fact learning, but insight into contexts, capacity to analyze knowledge matter and extract what is relevant to the prevalent situation, critical approaches and judgement (Holmberg, 1991 : 27). This is to say that knowledge of the subject matter is as

important as the opportunity for learners to develop their learning skills through effective use of existing media.

Self-directed learning should be one of the central goals in any distance learning programme. It should be noted, however, that while distance learning courses may be particularly well suited to self-directed learners, they do not necessarily have anything to do with the development of learning skills. As distance educators, we must avoid any tendency to turn distance education into the traditional mode of teaching and learning.

The development of study skills has become a crucial issue in many institutions of higher education. The level at which students succeed in courses is often as much to do with the way they study as with the level of ability and prior knowledge they bring to the courses, as well as the demands of particular tasks. However, learners are different in the ways they learn. Hence, individual differences must be acknowledged and teaching strategies should be carefully designed to accommodate them. Learners should be "trained" to exercise their study skills. As previously mentioned, the value of knowledge is an end in itself, and the most useful learning is.. "the learning of the process of learning" (Rogers, 1969). Additional material, such as broadcast material, can be integrated into the course texts in order for students to develop their study skills alongside their learning.

The key to success is to design the appropriate distance learning materials which provide for the most effective learning. However, the achievement of such design is not a simple task. There are a wide range of factors affecting the design process. The design of materials will be improved if as many of these factors as possible are taken into consideration.

The study identifies some major problems affecting the course design process. They are :

- 1) The process involves many people who have come from different backgrounds and have different perspectives in designing learning materials.

- 2) The philosophy of distance education is not always clearly understood among those involved in the process.

- 3) Culture is an important issue determining the design of learning materials.

The first step to finding a resolution is to be aware that there are some problems existing. As soon as we are able to acknowledge the existence of the problems, we begin to accept the consequences that these problems imply. STOU has begun to understand the value of the media and their effective use in distance learning courses. It needs co-operation and dedication from its staff members to establish a better form of integrated multi-media system.

The teaching strategy an individual adopts in design integrated multi-media packages is to some extent determined by the culture

he or she is in. Affected by their own culture, educational technologists or media producers who come from two different cultures have different viewpoints on the teaching strategies they should apply with instructional material.

In this study, the concept of "Khit-Pen" has been discussed as an approach for the development of self-directed learning. The design of the Thai adult functional literacy curriculum is based on the concept of Khit-Pen. It employs techniques that motivate adult learners to examine their living conditions, identify problems and their causes. Learners are encouraged to seek solutions, based on an analysis of their own experiences and resources in the context of their environment and community. The same method can also be introduced to STOU programmes, to encourage its students to practise skills in knowledge application and analysis so as to engage themselves fully in the process of life-long education.

BIBLIOGRAPHY

- Adams, D. (1964). Educational Planning. New York: Syracuse U.
- Allen, J., Braham, P. & Lewis, P. (Eds.). (1992). Political and Economic Forms of Modernity. United Kingdom: Basil Blackwell and the Open University.
- Alvarado, M., Gutch, R. & Wallen, T. (1987). Learning the Media: an Introduction to Media Teaching. London: Mcmillan Education Ltd.
- Andre, T. (1979). Does answering higher-level questions while reading facilitate productive learning? Review of Educational Research, 49 (2), 280-318.
- Asian Development Bank. (1987a). Distance Education in Asia and the Pacific Volume I. Philippines: Asian Development Bank.
- Asian Development Bank (1987b). Distance Education in Asia and the Pacific Volume II. Philippines: Asian Development Bank.
- Asian Programme of Educational Innovation for Development. (1980). Production and Utilization of Educational Broadcasting Programmes: Report of an APEID Technical Working Group Meeting on Educational Broadcasting. Bangkok: Unesco Regional Office For Education in Asia and Oceanic.
- Ausubel, D. (1968). Educational Psychology : a Cognitive View. New York : Holt, Rinehart & Winston.
- Bååth, A. (1979). Correspondence education in the light of a number of contemporary teaching models. Malmö: Libertlermods.
- Bååth, A. (1982). Distance students' learning empirical findings and theoretical deliberation. Distance Education, 3(1), 6-27.
- Bååth, J. (1980). Postal Two-Way Communication in Correspondence Education. Lund : Gleerup.

- Bates, A. (1970). Exploring the Media. Unpublished manuscript. The Open University of United Kingdom.
- Bates, A. (1971a). Evaluation of broadcasts and student assessment. Unpublished manuscript, the Open University of United Kingdom.
- Bates, A. (1971b). Media research. Unpublished manuscript, the Open University of United Kingdom.
- Bates, A. (1971c). Use of broadcasts in 'parallel' to correspondence texts. Unpublished manuscript, the Open University of United Kingdom.
- Bates, A. (1971d). Who Needs Broadcasting ? Unpublished manuscript, The Open University of United Kingdom.
- Bates, A. (1972a). Broadcast allocation policy and transmission times. Unpublished manuscript, the Open University of United Kingdom.
- Bates, A. (1972b). Research into OU broadcasting: 1971-1972. Unpublished manuscript of the Open University of United Kingdom.
- Bates, A. (1972c). Students' Preference for Audio-Visual Materials. Unpublished manuscript, the Open University of United Kingdom.
- Bates, A. (1973a). An evaluation of the effect of basing an assignment on broadcast. Programmed Learning Material and Educational Technology, 10 (4), 348-59.
- Bates, A. (1973b). Guidelines to Counsellors and Tutors on Use of Broadcasts. Unpublished manuscript, the Open University of United Kingdom.
- Bates, A. (1974a). Broadcasting and multi-media teaching. In J. Tunstall (ed), The Open University Opens. London : Routledge.
- Bates, A. (1974b). Criteria and guidelines the allocation of broadcasts. Unpublished manuscript, the Open University of United Kingdom.
- Bates, A. (1974c). Success and failure in innovation at the Open University. Programmed learning and Educational Technology, 11(1), 16-23.

- Bates, A. (1974d). What are we going to do about broadcasting? Unpublished manuscript, the Open University of United Kingdom.
- Bates, A. (1975a). Future of Broadcasting at the Open University. Unpublished manuscript, the Open University of United Kingdom.
- Bates, A. (1975b). Obstacles to the effective use of communication media in a learning system. Aspects of Educational Technology VIII, 15-28.
- Bates, A. (1975c). Student Use of Open University Broadcasting. Unpublished manuscript, the Open University of United Kingdom.
- Bates, A. (1975d). Should Assignments be set on Broadcast Programmes ? Unpublished manuscript, the Open University of United Kingdom.
- Bates, A. (1976a). Whatever Happend to Radio at the Open University. Unpublished manuscript, The Open University of United Kingdom.
- Bates, A. (1976b). Summary of Activities of Audio-Visual Media Research Group in 1975. Unpublished manuscript, the Open University of United Kingdom.
- Bates, A. (1977). A Proposal to Allocate Broadcast Resources in "Blocks" to Faculties. Unpublished manuscript, the Open University of United Kingdom.
- Bates, A. (1978). Options for delivery media. In H. Ferraton (ed), The Cost of Educational Radio. Washington D.C. : World Bank.
- Bates, A. (1979a). Appropriate teaching functions for television, radio and audio-cassettes in Open University courses. Unpublished manuscript, the Open University of United Kingdom.
- Bates, A. (1979b). Whatever happened to radio at the Open University? Journal of Educational Broadcasting International, 12(3), 119-1
- Bates, A. (1980a). Pacing of TV Programmes. Unpublished manuscript, The Open University of United Kingdom.
- Bates, A. (1980b). Producer/Researcher Co-operation at the British Open University. Unpublished

manuscript, the Open University of United Kingdom.

Bates, A. (1980c). Towards a Better Theoretical Framework for Studying Learning from Educational Television. Unpublished manuscript, the Open University of United Kingdom.

Bates, A. (1981a). Learning from audio-visual media : the Open University experience. Teaching at a Distance Research Supplement (1).

Bates, A. (1981b). Towards a better research framework for evaluating the effectiveness of educational media. British Journal of Education Technology, 12(3), 215-233.

Bates, A. (1981c). Some Unique Educational Characteristics of Television and Some Implications for Teaching and Learning. Unpublished manuscript, the Open University of United Kingdom.

Bates, A. (1982a). Learning from audio-visual media. Institutional Research Review, 1, 33-57.

Bates, A. (1982b). Radio : the Unforgotten Medium ? Unpublished manuscript, The Open University of United Kingdom.

Bates, A. (1982c). Roles and characteristics of television and some implications for distance learning. Distance Education, 3(1), 2

Bates, A. (1983). The Relationship Between Programme Style and Structure and Learning from Television. Unpublished manuscript, the Open University of United Kingdom.

Bates, A. (1984a). Broadcasting in Education. London: Constable.

Bates, A. (1984b). The role of technology in Distance Education. London: Croom Helm.

Bates, A. (1990). Interactivity as a Criterion for Media Selection in Distance Education. Paper presented at the Asian Association of Open Universities, Universitas Terbuka, Indones

Bates, A. & Gallagher, M. (1976). The Development of Rearch in Broadcasting at the Open University.

British Journal of Educational Technology, 1(7), 31-43.

Bates, A. & McIntosh, N.E. (1972). Student access to audio-visual materials. Unpublished manuscript, the Open University of United Kingdom.

Bates, A. & Pugh, A.K. (1975). Designing multi-media courses for individualised study: the Open University Model and its relevance to conventional universities. British Journal of Educational Technology, 6(3), 46-56.

Bates, T. & Robinson, J. (Ed.). (1976). Evaluating Educational Television and Radio. United Kingdom : The Open University Press.

Baud, D. (Ed.). (1981). Developing Student Autonomy in Learning. (2nd.ed.) London:Kogan Page.

Baynton, M. (1992). Dimensions of 'control' in distance Education: a factor analysis. The American Journal of Distance Education, 6(2), 17-31.

BBC (1992). Extending Choice : BBC's Role in the New Broadcasting Age. London: BBC.

BBC (1993). Producers' Guidelines. London : BBC

BBC (1994). Report and Accounts 1993/94. London: BBC.

Bennett, C., Foreman-Peck, L. and Higgins, C. (1996). Researching into Teaching Methods in Colleges and Universities. London : Kogan Page.

Berrigan F. & Gibson A. (1977). Radio and Audio-Vision at the Open University. Unpublished manuscript, the Open University of United Kingdom.

Berrigan, F. (1979). Open University Radio : What do We Know About it? Unpublished manuscript, the Open University of United Kingdom.

Bocock, R. & Thomson, K. (Eds.). (1992). Social and Cultural Forms of Modernity. United Kingdom: Basil Blackwell and the Open University.

Brahmawong, C. (1986). Manual for Media Production in Distance Learning Course. Nonthaburi : STOU Press.

- Brahmawong, C. (1992). Development of Multi-Media Based Distance Learning Packages. Paper presented at the 16th ICDE World Conference, Thailand.
- Briggs, A. (1979). Open University-the first ten years. Journal of Educational Broadcasting International, 12(3), 109-113.
- Brookfield, S. (Ed.). (1985). Self-Directed Learning: From Theory to Practice. U.S.A.: Jossey-Bass Inc; Publishers.
- Brown, D. (1978). Student Attitudes to Radio. Unpublished manuscript, the Open University of United Kingdom.
- Brown, D. (1979a). Educational broadcasting: two lessons from the Open University experience. Unpublished manuscript, the Open University of United Kingdom.
- Brown, D. (1979b). Helping Students to Learn Through Television and Radio. Unpublished manuscript, the Open University of United Kingdom.
- Brown, D. (1979c). New Students and Radio at the Open University. Unpublished manuscript, the Open University of United Kingdom.
- Brown, D. (1980a). Student Attitudes to Radio. Unpublished manuscript, the Open University of United Kingdom.
- Brown, D. (1980b). New students and radio at the Open University. Journal of Educational Broadcasting International, 13(1), 40-42.
- Brown, D. (1982). Just one Version of Reality : Using Television Case-Studies in University Courses. Unpublished manuscript, the Open University of United Kingdom.
- Bruner, J.S. (1966). Toward a Theory of Instruction. Cambridge: The Belknap Press.
- Bugelski, B.R. (1971). The Psychology of learning applied to teaching. (2nd ed.). New York: Bobbs-Merrill.
- Bull, S. G. (1973). The role of questions in maintaining attention to textual material. Review of Educational Research, 43(1), 83-87.

- Buripakdi, C. & Mahakhan, P. (1980). Thailand : the education system In T.N. Postlethwaite & R.M. Thomas (Eds). Schooling In the Asian Region. Great Britain: Pergamon Press.
- Burns, G. & Thompson, R.J. (1989). Television Studies:Textual Analysis. New York.
- Candy, P.C. (1991). Self-direction for lifelong learning: a comprehensive guide to theory and practice. Oxford: Jossey-Bass Publishers.
- Carter, V. (1996). Do media influence learning?: Revisiting the debate in the context of distance education. Open Learning, 11 (1), 31-40.
- Charnley, A.H., Osborn M. & Withnall A. (1981). Review of Existing Research in Adult and Continuing Education Volume IV. U.K.: National Institute of Adult Education (England and Wales).
- Chaya-Ngam, I. (1987). Distance Education in Thailand. Manila : Asian Development Bank.
- Chené, A. (1983). The concept of autonomy in adult education : a philosophical discussion. Adult Education Quarterly, 34 (1), 38-47.
- Chesterton, P. (1985). Curriculum control in distance education. Teaching at a distance, 26, 32.
- Choom-muangpak, C. (1971). Decision making of a Khit-Pen man. Journal of Private Education, 24-25.
- Cicourel, A. (1982). Interviews, surveys and the problem of ecological validity. American Sociologist, 17, 11-20.
- Clark, R. (1994). Media will never influence learning. Educational Technology Research and Development, 42 (2), 21-9.
- Clark, R.E. (1983). Reconsidering research on learning from media. Review of Educational Research, 53(4), 445-460.
- Coldeway, D.O. (1987). Behaviour analysis in distance education: a systems perspective. American Journal of Distance Education, 1(2), 7-20.
- Coldeway, D.O. (1988). Methodological issues in distance educational research. American Journal of Distance Education, 2(3), 45-54.

- Converse, J. (1984). Strong arguments and weak evidence : the open/closed questioning controversy of the 1940s. Public Opinion Quarterly 48, 267-282.
- Converse, J. and Presser, S. (1986). Survey Questions : Handcrafting the Standardized Questionnaire. London : Sage Publications, Inc.
- Cookson, P.S. (1989). Research on learners and learning in distance education: a review. American Journal of Distance Education, 3(2), 22-34.
- Cooper, H.M. (1989). Integrating Research : A Guide for Literature Reviews. London:Sage Publications.
- Creswell, J. (1994). Research Design : Qualitative & Qualitative Approaches. London : Sage Publications, Inc.
- Crisell, A. (1986). Understanding Radio. Great Britain : Richard Clay.
- Crooks, B. & Kirkwood, A. (1988). Video-Casstte by Design in Open University Course. Unpublished manuscript, The Open University of United Kingdom.
- Croton, G. (1986). From Script to Screen. England: BBC Print Unit.
- D213 Course Team. (1989). D213 Broadcast Bid.
- D213 Course Team. (1992). D213 Assignment Booklets 1-3.
- D213 Course Team. (1992). D213 Course Guide.
- D213 Course Team. (1992). Study Guides 1-4.
- D213 Course Team. (N.D.). D213 Course Proposal.
- D213 Course Team. (N.D.). D213 Teaching Objectives and Strategy.
- Dale, E. (1965). Audio-Visual Methods in Teaching. London: Holt, Rinehart and Winston.
- Daniel, J.S. & Marquis, C. (1979). Interaction and Independence: Getting the mixture right. Teaching at a distance, 14(Spring), 29-44.

- Delling, R. (1966). Versuch der Grunlegung zu einer systematischen theorie des fernunterrichts. In Fernunterricht 1966. Festschrift zum 50. Geburtstag von Walter Schultz Rache, ed. L.Sroka Hamburg : Walter Schultz Valag.
- Delling, R.M. (1987). Towards a Thoery of Distance Education. ICDE Bulletin , 13,21-25.
- Denzin, N. and Lincoln, Y. (1994). Entering the field of qualitative research in N. Denzin and Y. Lincoln (Ed.), Handbook of Qualitative Research. London : Sage Publications, Inc.
- Department of Non-Formal Education. (1984). Evaluation of Thai Non-Formal. Bangkok : Krurusapa Press.
- Dohmen, G. (1967). Das Fernstudium. Ein neues padagogisches forschungs und Entwicklungsfeld. Heidelberg : Quell & Meyer.
- Duchastel, P.C. & Merrill, P.F. (1973). The effects of behavioral objectives on learning : a review of empirical studies. Review of Educational Research,43(1), 53-69.
- Duffy, T.M. & Waller, R. (Eds.). (1985). Designing Usable Texts. London: Academic Press.
- Durbridge, N. (1980). Problems of Using Television for Teaching Adults. Paper presented in SIAE Annual Conference, University of Stirling.
- Durbridge, N. (1981a). The Adult Learner and Educational Television. Unpublished manuscript, the Open University of United Kingdom.
- Durbridge, N. (1981b). Audio-Cassettes in Higher Education. Unpublished manuscript, the Open University of United Kingdom.
- Durbridge, N. (1984). Audio-Cassette. Unpublished manuscript, the Open University of United Kingdom.
- Durbridge, N. (1986). Integrating Television and Audio Cassettes : A Case Study of TV 6, E 206, Personality Development and Learning. Unpublished manuscript, the Open University of United Kingdom.

- Durbridge, N. (1992). Radio and Audio Cassettes in Distance Education. Unpublished manuscript, The Open University of United Kingdom.
- Edstrom, L., Erdos, R. & Prosser, R. (Ed.). (1970). Mass Education: Studies in Adult Education and Teaching by Correspondence in Some Developing Countries. Sweden: Almqvist and Wiksell Stockholm.
- Ely, D.P. (1970). Toward a Philosophy of Instructional Technology. Journal of Educational Technology, 2(1), 81-94.
- Enckevort, G. (1984). Problems of research for a new open university. Distance Education, 5(1), 72-83.
- Eraut, M. (1985). Instructional design. In T. Husen & T.N. Postlethwaite (Eds.), International Encyclopedia of Education Vol 5. Oxford: Pergamon Press.
- Erdos, R. (1967). Teaching by Correspondence. London: Longman.
- Evans, R.I. (1968). B.F. Skinner: The Man and his Ideas. New York: E.P. Dulton and Co, Inc.
- Evans, T. & Nation, D. (Eds.). (1993). Reforming Open and Distance Education : Critical Reflections from Practice. London: Kogan Page.
- Evans, T. & Nation, D. (1989). Dialogue in practice, research and theory in distance education. Open Learning, 4 (2), 37-43.
- Evans, T. & Nation, D. (Eds.). (1993). Reforming Open and Distance Education : Critical Reflections from Practice. London: Kogan Page.
- Farnes, N. (1976). An educational technologist looks at student-centred learning. British Journal of Educational Technology, 1(7), 61-65.
- Farnes, N. (1993). Student centred learning. Teaching at a Distance, 3, 2-6.
- Farrell, J. P. & Heyneman, S.P. (1989). Textbooks in the Developing World. Washington D.C.: The World Bank.

- Ferguson, J. (1975). The Open University from Within. London: University of London Press.
- Foddy, W. (1995). Constructing Questions for Interviews and Questionnaires. Cambridge : Cambridge University Press.
- Fontana, A. and Frey, J. (1994). Interviewing : the art of Science in N. Densin and Y. Lincoln (Ed.), Handbook of Qualitative Research. London : Sage Publications, Inc.
- Fossard, E. (1982). Writing the Instructional Radio Script. Washington D.C.: Academic for Educational Development.
- Fowler, E.J. (1984). Survey Research Methods. London: Sage Publication Ltd.
- Gagné, R.M. (1970). The Conditions of Learning (2nd.ed.). New York : Holt, Rinehart & Winston.
- Gagné, R.M. (1977). The Conditions of Learning. New York : Holt, Rinehart and Winston.
- Gagné, R.M. & Briggs L. J. (1979). Principles of Instructional Design (2nd ed.). New York: Holt, Rinehart and Winston.
- Gagné, R.M. (1985). The Condition of Learning and Thoery of Instruction(4th ed.). Japan: Holt-Saunders.
- Gallagher, M. (1975). Broadcast Evaluation : What Can it Tell Us that We don't Already Know ? Unpublished manuscript, the Open University of United Kingdom.
- Gallagher, M. (1977). Using Broadcasts in the Social Sciences. Unpublished manuscript, the Open University of United Kingdom.
- Gallagher, M. (1978). Good Television and Good Educational Practice. Unpublished manuscript, the Open University of United Kingdom.
- Garrison, D.R. & Baynton, M. (1987). Beyond Independence In Distance Education-The Concept of Control. The American Journal of Distance Education,1(3), 3-15.
- Geoff. A. (1989). The Developer's Identity Crisis. In M.S. Parer (Ed.), Development, Design, and

Distance Education. Australia : Centre for Distance Learning. Gippsland Institute.

Gheddo, P. (1973). Why is the Third World Poor ?. New York : Orbis Books.

Gibbs, G. & Durbridge, N. (1976). Characteristics of Open University Tutors (part 1). Teaching at a distance, 6, 96-102.

Gibbs, G. (1982). A review of the research of Ference Marton and the Goteborg group: a phenomenological research perspective on learning. Higher Education, (11), 123-145.

Gibbs, G. (1991). Teaching Students to Learn : a Student-Centred Approach. Milton Keynes : the Open University Press.

Gibbs, G. (1992). Improving the quality of student learning. Bristol: Technical and Educational Services Ltd.

Greenacre, L. (1987). What is wrong with open learning? Open Learning, 2 (3), 41-42.

Grundin, H. (1978). The Effect of Transmission Times on Student's Use of OU. Unpublished manuscript, the Open University of United Kingdom.

Grundin, H. (1979). OU broadcasting times : a study of viewing and listening opportunities in 1978-1979 and in the future. Unpublished manuscript. The Open University of United Kingdom.

Grundin, H. (1985). Report on the 1984 AV Media Survey. Unpublished manuscript. The Open University of United Kingdom.

Guy, R. (1990). Research and distance education in the third world cultural contents. Paper presented at the 1st Research in Distance Education Seminar at Deakin University, 1989, 48-58.

Hall, S. & Gieben, B. (Eds.). (1992) Formations of Modernity. United Kingdom: Basil Blackwell and the Open University.

Hall, S., Held, D. & McGrew, T. (Eds.). (1992). Modernity and its Futures. United Kingdom: Basil Blackwell and the Open University.

- Hancock, A. (1977). Planning for Educational Mass Media. New York: Longman.
- Hargreaves, A. (1994). Changing Teachers, Changing Times : Teacher's Work and Culture in the Postmodern Age. Cassell : London.
- Harris, D. (1976). Educational technology at the Open University: a short history of achievement and consellation. British Journal of Educational Technology, 1(7), 43-53.
- Hartley, J. & Davics, I.K. (Eds). (1978). Contributions to an educational technology Vol 2. London: Kogan Page.
- Hartley, J. (1985). Designing Instructional Text (2nd ed.). London: Kogan Page.
- Hawkrige, D.G. (1976). Next Year, Jerusalem! The Rise of Educational Technology. Bristish Journal of Education Technology, 1(7), 7-30.
- Heinich, R. (1970). Technolgy and the Management of Instruction. U.S.A.: National Education Association.
- Heinich, R. (1982). The proper study of instructional technology. Educational Communications and Technology 2(32), 67-87.
- Hillman, D., Willis, D. and Gunawardena, C. (1994). Learner-interface interaction in distance education : an extension of contemporary models and strategies for practitioners. The American Journal of Distance Education, 8 (2), 30-42.
- Hills, P. & Gilbert, J. (Eds.). (1977). Aspects of educational Technology Volume XI: The Spread of Educational Technology. Great Britain: Kogan Page Ltd.
- Hochleimer, J.L. & Shanks, T.E. (1980). Instructional Television and the Adult Learner: A Selected Review of the Literature Since 1967. Unpublished manuscript, Institute for Communication Research : Stanford University.
- Hodson, V.E., Mann, S.J. & Snell, R. (1987). Beyond Distance Teaching-Toward Open Learning. Milton Keynes: Open University Press.

- Holmberg, B. (1960). On the methods of teaching by correspondence. Lunds universitets aarskrift Nf. Avd., Bd 54 Nr 2, Lund : Glurup.
- Holmberg, B. (1967). Correspondence Education : a Survey of Application, Methods, and Problems. Malmo : Hermods.
- Holmberg, B. (1977). Distance Education : a Survey and Bibliography. London : Kogan Page.
- Holmberg, B. (1983). Guided didactic conversation in distance education. In D.Sewart, D. Keegan & B. Holmberg (eds.), Distance Education : International Perspectives. London : Croom Helm, 114-22.
- Holmberg, B. (1986). Growth and Structure of Distance Education. London : Croom Helm.
- Holmberg, B. (1987). The development of distance education research. American Journal of Distance Education, 1(3), 16-23.
- Holmberg, B. (1989). Theory and Practice of Distance Education. London: Routledge.
- Holmberg, B. (1991). Educational theory and its application to distance education. In B. Holmberg & G. Ortner (Eds.), Research into Distance Education. Bern : Peter Lang.
- Howe, M.J.A. (Ed.). (1977). Adult learning: Psychological research and applications. London: John Wiley and Sons.
- Hubbard, G. (1975). Analogues of the Open University. British Journal of Educational Technology, 3(6), 57-62.
- Hudgins, B. (1976). Learning and Thinking. USA : F.E. Peacock Publishers Inc.
- Inglis, A. (1989). Fifteen Years of Instructional Design : a Personal Perspective. In M.S. Parer (Ed.), Development, Design, and Distance Education. Australia : Centre for Distance Learning. Gippsland Institute.
- Jacquinet, G. (1979). Semiology and the producer. Educational Broadcasting International, 12(4), 185-189.

- Jamison, D., Suppers, P. & Wells, S. (1973). The Effectiveness of Alternative Instructional Media: A Survey. Washington D.C.: Information Center on International Technology Academy for Educational Development.
- Jay, A. (1972). Corporation Man. London : Cape.
- Jenkins, J. (1981). Materials for Learning: How to teach adults at a distance. London: Routledge and Kegan Paul Ltd.
- Jonassen, D., Campbell, J. and Davidson, M. (1994). Learning with media : restricting the debate. Educational Technology Research and Development, 42 (2), 31-9.
- Kaewsaihai, T. (1980). Khit-Pen : the Eternal Truth for Villagers. Journal of Non-Formal Education , 1-2.
- Kasworm, c. & Yao, B. (1992). The Development of Adult Learner Autonomy and Self-Directedness in Distance Education. Paper presented at the 16th ICDE World Conference, Thailand.
- Katz, E. & Wedell, G. (1978). Broadcasting in the Third world. London: The Macmillan Press Ltd.
- Kaye, A. & Harry, K. (1982). Using the Media for Adult Basic Education. London : Croom Helm.
- Kaye, A. & Rumble, G. (Ed.). (1981). Distance Teaching for Higher and Adult Education. London: Croom Helm.
- Keegan, D. (1980). On defining distance education. Distance Education, 1 (1), 13-36.
- Keegan, D. (1990). Foundations of Distance Education (2nd ed.). London: Routledge.
- Kember, D. (1991). Instructional design for meaningful learning. Instructional Science, 20, 289-310.
- Kern, L. (1976a). Basing assignments on broadcasts. Unpublished manuscript, the Open University of United Kingdom.
- Kern, L. (1976b). Using Broadcast Notes in Distance Teaching. Unpublished manuscript, the Open University of United Kingdom.

- Kern, L. (1977). Non-broadcast media technologies at the British Open University. Journal of Educational Broadcasting International, 10 (3), 106-111.
- Ketudat, S. et al (1978). Systems of Higher Education: Thailand. U.S.A.: International Council for Educational Development.
- Kirkwood, A. (1990). Into the video Age : Open University television in the 1990s. Journal of Educational Television, 16 (2), 77-85.
- Kirkwood, A. (1991). Audio-Visual Media and New Technologies at the Service of Distance Education. Paper presented at a conference in Spain, May 1991.
- Kirkwood, A. (1994). Selection and use of media for open and distance learning. In F. Lockwood (Ed.), Material Production in Open and Distance Learning. London : Paul Chapman.
- Knowles, M. (1988). The Adult Learner : a Neglected Species. Houston : Gulf Publishing Company.
- Knowles, M.S. (1975). Self-directed learning: a guide for learners and teachers. U.S.A.: Follett Publishing Company.
- Koul, B. & Jenkins, J. (Eds). (1990). Distance Education : a Spectrum of Case Studies. London: Kogan Page.
- Koumi, J. (1975). Catering for the Individual Differences among Open University Students. Unpublished manuscript, the Open University of United Kingdom.
- Koumi, J. (1991). Narrative screen writing for educational television : a framework. Journal of Educational Television ,17 (3), 131-148.
- Koumi, J. (1994). Media comparison and deployment : a practitioner's view. British Journal of Educational Technology, 25 (1), 41-57.
- Kraft, J. (1968). Student Background and University Admission. Bangkok : Kurusapa Press.
- Krutta, B. (1982). A Construction of Khit-Pen Inventory. Unpublished master's thesis, Chulalongkorn University, Thailand.

- Laurillard, D. (1983). The Phenomena of Learning from Television. Unpublished manuscript, the Open University of United Kingdom.
- Laurillard, D. (1991a). Mediating the message : programme design and students' understanding. Instructional Science, 20 (1), 3-24.
- Laurillard, D. (1991b). The Value of Broadcasting for Distance and Non-Distance Learning. Paper presented at Thames Polytechnic Centennial Conference : Distance Learning by Broadcasting.
- Laurillard, D. (1993a). Balancing the Media. Unpublished manuscript, The Open University of United Kingdom.
- Laurillard, D. (1993b). Rethinking University Thinking. London: Routledge.
- Laurillard, D. (1994). Multi-Media and the Changing Experience of the Learner. Unpublished manuscript, the Open University of United Kingdom.
- Lawless, C. & Kirkwood, A. (1976). Training the educational technologist. British Journal of Educational Technology, 1(7), 54-60.
- Lewis, B. N. (1971a). Course Production at the Open University I: Some basic problems. British Journal of Educational Technology, 1(2), 4-13.
- Lewis, B.N. (1971b). Course Production at the Open University II: Activities and Activity Networks. British Journal of Educational Technology, 2(2), 111-123.
- Lewis, B.N. (1971c). Course Production at the Open University III: Planning and Scheduling. British Journal of Educational Technology, 3(2), 109-204.
- Lewis, B.N. (1978a). Educational technology at the Open University: an approach to the problem of quality. In J. Hartley & I.K. Davies (Eds.). 'Contributions to Educational Technology Vol 2' London: Kogan Page.
- Lewis, H.A. (1978b). A teacher's reflections on autonomy. Studies in Higher Education, 3 (2), 149-159.

- Lewis, R. (1986). How to Develop and Manage an Open-Learning Scheme. Great Britain: Council for Educational Technology.
- Lewis, R. (1986). What is open learning? Open Learning, 1 (2), 5-10.
- Lewis, R. & Meed, J. (1986). How to Manage the Production Process. Great Britain: Council for Educational Technology.
- Lewis, R. & Paine, N. (1986). How to Find and Adapt Materials and Select Media. Great Britain: Council for Educational Technology.
- Lewis, R. & Spencer, D. (1986). What is Open Learning. Great Britain: Council for Educational Technology.
- Lockwood, F. (1981). Different Formats for Summative Assessment Material-variations on a theme. British Journal of Educational Technology, 12(3), 234-242.
- Lockwood, F. (1992). Activities in Self-Instructional Texts. London: Kogan Page.
- MacDonald-Ross, M. (1970). Notes on Objectives, assessment and activities. Unpublished manuscript, the Open University of the United Kingdom.
- Marland, P.W. & Store, R.E. (1982). Some Instructional strategies for improved learning from distance teaching materials. Distance Education, 3(1), 72-106.
- McCormick, B. (1976). Educational Technologists; knowledge pretensions and role change. British Journal of Educational Technology, 1(7), 75-84.
- McDonald-Ross, M. & Waller, R. (Ed.). (1975). Open University texts: criticism and alternatives. Great Britain: Open University (The Institute of Educational Technology).
- McDonald-Ross, M. (1973). Behaviour objectives: a critical review. Instructional Science, 2, 1-51.
- McDonald-Ross, M. (1976). Janus the Consultant: educational technology at the open University. British Journal of Educational Technology, 1(7), 65-75.

- McIntosh, N.E. & Bates, A.W. (1972). Mass Media Courses for Adults. Programmed Learning and Educational Technology, 9(4), 188-197.
- McIntosh, N.E. (1973). The response to the Open University: continuity and discontinuity. Higher Education, 2(2), 186-195.
- McIntosh, N.E., Calder, J.A. & Swift, B. (1976). A Degree of Difference: a study of the first years' in take of students to the Open University of the United Kingdom. U.K.: Society For Research into higher education Ltd. at the University of Surrey, Guildford.
- Mckenzie, N. (1976). A Crisis of Identity? British Journal of Educational Technology, 1(7), 4-6.
- Meacham, D. (1989). The Role of Developers and Designers in Distance Education. In M.S. Parer (Ed.), Development, Design, and Distance Education. Australia : Centre for Distance Learning. Gippsland Institute.
- Meed, J. (1974). Classification of Radio Broadcasts : Format and Technique. Unpublished manuscript, the Open University of United Kingdom.
- Meed, J. (1975). The Use of Radio at the Open University, 1971-1974. Unpublished manuscript, the Open University of United Kingdom.
- Meed, J. (1976). The Use of Radio in the Open University's Multi-Media Educational System. Journal of Educational Broadcasting International, 9(1), 16-20.
- Merriam, S. (1988). Case-study Research in Education : a Qualitative Approach. San Francisco : Jossey-Bass.
- Merrill, D. (1984). What is learner Control? In Instructional Development: the State of the Art II.
- Millard, J. (1985). Local tutor-student contact in the Open University. Teaching at a Distance, 26, 11.
- Miller, D. (1972). Technology and self-study. Educational Technology System, 1(1), 73-77.

- Miller, J. (1976). A new role for broadcasting?
Teaching at a Distance, 6(June), 110-114.
- Miller, J. (1979). Open University broadcasting after ten years. Journal of Educational Broadcasting International, 12(3), 114-118.
- Ministry of Education. (1971). Lower Secondary Education Curriculum B.E. 2521. Bangkok : Kurusapa Publishing.
- Ministry of Education. (1976). A History of Thai Education. Bangkok : Ministry of Education.
- Ministry of Education. (1977). National Education Plan B.E. 2520. Bangkok : United Production Publishing Com.
- Ministry of Education. (1980). Upper Secondary Education Curriculum B.E. 2524. Bangkok : Amarin Publishing.
- Ministry of Education. (1981). Primary Education Curriculum B.E. 2521. Bangkok : Kurusapa Press.
- Moore, M. (1972). Learner autonomy : the second dimension of independent learning. Convergence, 5 (2), 76-87.
- Moore, M. (1973). Toward a theory of Independent learning and teaching. Journal of Higher Education, XVII (12), 661-679.
- Moore, M. (1977). A Model of Independent Study. Epistolodidaktika, 1, 6-40.
- Moore, M. (1983). Self-directed learning and distance education. Unpublished manuscript, Fern Universitat.
- Moore, M. (1986). Self-directed learning and distance education. Journal of Distance Education, 1 (1), 7-24.
- Morgan, A. (1984). A report on qualitative methodologics in research in distance education. Distance education, 5(2), 252-267.
- Morgan, A. (1993). Improving Your Students' Learning : Reflections on the Experience of Study. London : Kogan Page

- Morgan, F. (1978). Summary Report of an Evaluation of D101/TV4. Unpublished manuscript, the Open University of United Kingdom.
- Morris, P. (1977). The Open University as a forum for the implementation of new approaches to learning. In M. Howe (Ed.). Adult Learning: Psychological Research and Applications. London: John Wiley&Sons.
- Nakabutr, T. (1982). Khit-Pen : the right path to Thai education. Khit-Pen. Non-Formal Education Newsletter, 6.
- National Economic and Social Development Board. (1982). The Fifth National Economic and Social Development. Unpublished manuscript, Ministry of Thailand.
- Newsom Report (1963). Half Our Future. London: Ministry of Education, HMSO.
- Nicodemus, R. (1992a). Development of a Course Team. Unpublished manuscript, the Open University of United Kingdom.
- Nicodemus, R. (1992b). Open University Staff Reactions to the Tavistock Report. Unpublished manuscript, the Open University of United Kingdom.
- Nicodemus, R. (1992c). Understanding Course Teams : Organization and Dynamics. Unpublished manuscript, The Open University of United Kingdom.
- Niemi, J.A. (Ed.). (1971). Mass Media and Adult Education. New Jersey: Educational Technology Publications.
- Nopakun, O. (1985) . Thai Concept of Khit-Pen For Adult, and Non-Formal Education. Bangkok : Chulalongkorn University.
- Northedge, A. (1984). Report on Study Skills and the Social Sciences Foundation Course. Unpublished manuscript, The Open University of United Kingdom.
- Northedge, A. (1994). The Good Study Guide. Milton Keynes: The Open University

- Oates, J. (1982). A course team chairman's viewpoint. Institutional Research Review, 1, 1-8.
- Office of Educational Technology, STOU. (1994). Revising STOU Integrating Multi-Media System. STOU : STOU Press.
- Olson, D. & Bruner, J. (1974). Learning through experience and learning through media. In D.Olson (ed), Media and Symbols : The Forms of Expression. Chicago : University of Chicago Press.
- Open University. (Copyright). A Global Culture ? : D213 TV7. UK : BBC/OU.
- Open University. (Copyright). Black Experience in Britain : D213 Radio 4. UK : BBC/OU.
- Open University. (Copyright). D213 Audio Cassettes 1-4. UK : BBC/OU.
- Open University. (Copyright). Democracy in Africa : D213 Radio3. UK : BBC/OU.
- Open University. (Copyright). Gender and Consumption : D213 Radio 5. UK : BBC/OU.
- Open University. (Copyright). Global Firms, Shrinking Worlds : D213 TV4. UK : BBC/OU.
- Open University. (Copyright). Just an Illness : D213 TV5. UK : BBC/OU.
- Open University. (Copyright). Picturing the Modern City : D213 TV6. UK : BBC/OU.
- Open University. (Copyright). Poland-Democracy and Change : D213 TV3. UK : BBC/OU.
- Open University. (Copyright). Popular Culture : D213 Radio 6. UK : BBC/OU.
- Open University. (Copyright). Sociology Past and Present : D213 Radio8. UK : BBC/OU.
- Open University. (Copyright). The Making of Modern Europe : D213 Radio2. UK : BBC/OU.
- Open University. (Copyright). The West and the Rest : D213 TV2. UK : BBC/OU.

- Open University. (Copyright). What is Post-Modernity?
: D213 Radio7. UK : BBC/OU.
- Open University. (Copyright). Los Angeles-City of the
future ? : D213 TV8. UK : BBC/OU.
- Open University. (Copyright). The World We Have Lost:
D213 Radiol. UK : BBC/OU.
- Open University. (Copyright). The Enlightenment :
D213 TV1. UK : BBC/OU
- Opper, C. (1965). Educational Development in
Thailand. Asia, 3(Spring), 72-88.
- Parer, M. (Ed.). (1994). Unlocking Open Learning.
Australia: Centre for Distance Learning.
- Parer, M. (1992). Developing Open Learning Courses.
Australia: Centre for Distance Learning Monash
University.
- Paine, N. (1989). Open Learning in Transition : an
Agenda for Action. London: Kogan Page.
- Perraton, H. (1981). A theory for distance education.
Prospects, 11(1), 13-24.
- Perry, W. (1973). Outlook : an interview by E.
Walton. Journal of Educational Broadcasting
International, 6 (3), 148-151.
- Perry, W. (1976). Open University: A personal account
by the First Vice-Chancellor. Milton Keynes: The
Open University Press.
- Perry, W.G. (1970). Forms of Intellectual and Ethical
Development in the College years. London: Holt,
Rinehart and Winston, Inc.
- Peters, O. (1965). Des Fernunterricht. Weinheim :
Beltz.
- Peters, O. (1971). Theoretical aspects of
correspondence instruction. In O.Mackenzie & E.
Christensen (eds), The Changing World of
Correspondence Study. Pennsylvania State :
University Park and London.

- Peters, O. (1973). Die Didaktische struktur des fernun-terrichts. Untersuchungen zu einer industrialisierten for des lehrens und lernens. Tuebeinger Beitrage Zum Fernstudium 7, Weinheim : Beltz.
- Peters, O. (1983). Distance teaching and industrial production : a comparative interpretation in outline. In D. Sewart, D. Keegan & B. Holmberg (eds.), Distance Education : International Perspectives. Great Britain : Billing & Sons Limited, Worcester.
- Polter, F. (1990). Reading, Learning, and Media Education. England: Basil Blackwell Ltd.
- Preinvestment Study Team. (1985). Educational Media for Thailand : Educational Social and Media Background. Bangkok : UNESCO Press.
- Race, P. (1995). The Open Learning Handbook : Promoting Quality in Designing and Delivering Flexible Learning. London : Kogan Page.
- Radcliffe, J. & Bates, A.W. (1973). The Open University and the BBC. Paper presented at the University Palais de Congris, Liège, 24-28th September 1973.
- Radio Transmission Group. (1988). Final Report of the Radio Transmission Group. Unpublished manuscript, the Open University of United Kingdom.
- Raggatt, P. (1994). Outcomes and assessment in open and distance education. In F. Lockwood (Ed.), Material Production in Open and Distance Learning. London : Paul Chapman.
- Ramsden, P. (1992). Learning to Teach in Higher Education. London: Routledge.
- Ramsden, P. (Ed.). (1988). Improving Learning : New Perspectives. London: Kogan Page.
- Ramsden, P. (1992). Learning to Teach in Higher Education. London : Routledge.
- Reigeluth, C.M. (Ed.). (1983). Instructional-Design Theories and Models: An Overview of their Current Status. New Jersey: Lawrence Erlbaum Associates, Inc.

- Reiser, K. & Gagné R. (1982). Characteristics of media selection models. Review of Educational Research, 52 (4), 499-512.
- Rickwood, P. (1992). Student perceptions of the benefits from assignments. Open University, 7(2), 51-53.
- Robinson, J. (1982). Learning Over the Air. London : BBC.
- Roger, J. & BBC Education. (1980). Using Broadcasts With Adult. London:BBC.
- Rogers, C. & Freiberg, H.J. (1994). Freedom to Learn. (3rd ed.). Oxford: Maxwell Macmillan International.
- Rogers, C. (1969). Freedom to Learn. Columbus, Ohio : Merrill.
- Rogers, C. R. (1967). 'The Facilitation of Significant Learning' In L. Siegel (Ed.). Instruction: Some Contemporary Viewpoint. San Francisco: Chandler.
- Romiszowski, A. (1992). The Selection and Use of Instructional Media. London : Kogan Page.
- Rothkopf, E & Kaplan, B. (1972). Exploration of the effect of density and specificity of instructional objectives on learning from text. Journal of Educational Psychology 63, 295-302.
- Rowntree, D. (1973). Student exercises in correspondence texts. Unpublished manuscript, the Open University of the United Kingdom.
- Rowntree, D. (1986). Educational Technology in Curriculum Development. (2nd ed.). London: Paul Chapman Publishing Ltd.
- Rowntree, D. (1990). Teaching Through Self-Instruction. London : Kogan Page.
- Rowntree, D. (1992). Exploring Open and Distance Learning. London : Kogan Page.
- Rowntree, D. (1994). Preparing Materials for Open, Distance and Flexible Learning. London: Kogan Pag.

- Rumble, G. (1989). "Open learning", "distance learning", and the misuse of language. Open Learning, 4 (2), 28-36.
- Ryan, G. (1993). Student perceptions about self-directed learning in a professional course implementing problem-based learning Studies in Higher Education, 18 (1), 53-63.
- Saisamorn, S. (1986). Students' Attitudes of Educational Broadcasting Programmes. Nonthaburi : STOU Press.
- Salayacheewan, S. (1981). Khit-Pen. Journal of Curriculum Development, 3, 15-20.
- Schramm, W. (1977). Big Media, Little Media. London: Sage Publication Ltd.
- Sewart, D. (1981). Distance teaching: a contradiction in terms? Teaching at a Distance, 19, 8-18.
- Sewart, D., Keegan, D. & Holmberg, B. (Ed.). (1983). Distance Education: International Perspectives. London: Croom Helm.
- Shaw, B. & Taylor, J.C. (1984). Instructional design : distance education and academic tradition. Distance Education 2(5).
- Shrock, S. (1985). Faculty perceptions of instructional development and the success/failure of an instructional development programme : a naturalistic study. Educational Communications and Technology 1(33).
- Siffin, W. (1966). The Thai Bureaucracy : Institutional Change and Development. U.S.A.: East-West Centre Press, Honolulu.
- Simpson, M. (1994). Neurophysiological considerations related to interactive multimedia. Educational Technology Research and Development, 42 (1), 75-81.
- Skinner, B. (1968). The Technology of Teaching. New York : Appleton-Century-Crofts.
- Smith, P. & Kelly, M. (Ed.). (1987). Distance Education and the Mainstream. London: Croom Helm.

- Snelbecker, G.E. (1974). Learning Theory, Instructional Theory and Psychoeducational Design. U.S.A.: McGraw-Hill, Inc.
- Snow, R.E., Federico, P.A. & Montague, W.E. (Eds.). (1980). Aptitude, Learning and Instruction Volume 2: Cognitive Process Analysis of Learning and Problem Solving. U.S.A.: Lawrence Erlbourne Associates, Inc.
- Solomon, G. (1983). Using Television as a Unique Teaching Resource. Unpublished manuscript, the Open University of United Kingdom.
- Srinivassan, L. (1977). Perspectives on Non-Formal Adult Learning. New York : World Education.
- Srisa-an, W. (1986). Distance Education: The STOU Approach. Bangkok: Sukothai Thammathirat Open University Press.
- Stewart, D. & Daniel, J.S. (1988). Developing Distance Education: papers presented at the 14th World Conference. Oslo: International Council for Distance Education (ICDE).
- Stewart, D.W. (1984). Secondary Research. London: Sage Publications Ltd.
- STOU (Copyright). Distance Education : ST 26405 Radio 1-10. Nonthaburi : Office of Educational Technology, STOU.
- STOU (Copyright). Distance Education : ST 26405 TV1-3. Nonthaburi : Office of Educational Technology, STOU.
- STOU (1980). The Establishment of STOU : Historical Background and Aims. Nonthaburi : STOU Press.
- STOU (1986). Study of the Cost of STOU Programme Production. Nonthaburi : STOU Press.
- STOU (1989). STOU : Academic Bulletin. Nonthaburi : STOU Press.
- STOU (1990). STOU : Academic Bulletin. Nonthaburi : STOU Press.
- STOU (1993). ST 26405 : Distance Education I. Nonthaburi: STOU Press.

- STOU (1993). ST 26405 : Distance Education II .
Nonthaburi: STOU Press.
- Supadhiloke, B. (1983). Radio Correspondence
Education Planning in Thailand. Hawaii: East-
West Center.
- Swift, B. (1992). Public Awareness and Image of the
Open University. Unpublished manuscript, The
Open University of United Kingdom.
- Tajaroensuk, M. (1975). Educational planning in
Thailand: status and organization. Bulletin of
the Unesco Regional Office for Education in Asia
no.16,128-140.
- Tapingkae, A. (1973). Education in Thailand: Some
Thai Perspectives. U.S.A.: Washington D.C.
Department of Health Education and Welfare.
- Tapingkae, A. (1977). Education and development: a
Thai experience. Asian Profile, 5(6), 553-563.
- Taylor, A. (1991). Report on the Open University
Drop-In Viewing Audient Pilot Survey.
Unpublished, The Open University of United
Kingdom.
- Tennant, M. (1988). Psychology and Adult Learning.
London : Routledge.
- Thomas, I. & Sweeney, D. (1994). Media selection for
open learning - maximizing the effectiveness of
instructional communications. In M. Parer (Ed.),
Unlocking Open Learning. Australia : Centre for
distance learning.
- Thomas, R.M. (1992). International Comparative
Education. Oxford: Pergamon Press.
- Torrance, E.P. (1966). History of the concept 'guided
learning' and its application in teaching for
creative development. In R.R. Oyemann (Ed.).
Giving emphasis to guided learning. Cleveland,
Educational Research Council of Greater
Cleveland.
- Tough, A. (1979). The Adult's Learning Projects.
Toronto: Ontario Institute for Studies in
Education.

- Tucker, R. (1986). The Integration of media into the curriculum: and international report commissioned by the International Council For Educational Media. London: Kogan Page.
- Tunstall, J. (1974). The Open University Opens. London: Rautledge and Kegan Paul.
- Tunstall, J. (1993). Television Producers. London : Routledge.
- Unesco. (1967a). New Educational Media in Action: Case Studies for Planners-I. Unesco: International Institute for Educational Planning.
- Unesco. (1967b). Radio and Television in the Service of Education and Development in Asia. France: Unesco.
- Unesco. (1984). Media Education. Paris: Unesco.
- Unesco. (1985). Distance Education in Asia and the Pacific. Bulletin of the Unesco Regional Office for Education in Asia and the Pacific.*****
- Valcke, M. & Lockwood, F. (Eds). (1993). New Developments in Research in Relation to Distance Education Materials. Netherlands: Centre for Educational Technology and Innovation Open University of the Netherlands.
- Van Palten, J.; Chao, C. & Reigeluth, C. (1986). A review of strategies for sequencing and synthesizing information. Review of Educational Research 56(4):437-472.
- Vorapipatana, K. (1975a). Basic need in learning. Bangkok : Kurusapa Press.
- Vorapipatana, K. (1975b). The Khit-Pen man. World Education Report, 2.
- Wagnee, E.D. (1990). Looking at distance education through an educational technologist's eyes. American Journal of Distance Education, 4(1), 53-68.
- Walton, E. (1973). Outlook no. 3: Walton Perry, Vice Chancellor, the Open University. Journal of Educational Broadcasting International, 6(3), 148-151.

- Waniewicz, I. (1972). Broadcasting For Adult Education: A Guidebook to World-Wide Experience. Paris: Unesco.
- Weber, R.P. (1985). Basic Content Analysis. U.S.A.: Sage Publication, Inc.
- Wedemeyer, C. & Childs, G. (1961). New Perspectives in University Correspondence Study. Chicago : Center for Study of Liberal Education for Adults.
- Wedemeyer, C. (1971). Independent Study. In L.Deighton (ed.), The Encyclopedia of Education 4, 548-57. New York : Macmillan and Free Press.
- Wedemeyer, C. (1973). The use of correspondence education for post-secondary education. New York : Macmillan and Free Press.
- Wedemeyer, C. (1974). Characteristics of Open Learning Systems. Washington : National Association of Educational Broadcasters.
- Wedemeyer, C. (1977). Independent study. In A. Knowles (ed.), The International Encyclopedia of Higher Education, 5. San Francisco : Jossey-Bass Publishers.
- Wedemeyer, C.A. (1981). Learning at the Back Door: Reflections on Non-Traditional Learning in the Lifespan U.S.A.: The University of Wisconsin Press.
- Weisgerber, R.A. (1968). Instructional Process and Media Innovation. Chicago: Rand McNally & Company.
- Weston, J.P. (1973). Post-experience courses at Britain's Open University. Journal of Educational Broadcasting International, 6(3), 162-164.
- Woodley, A. & McIntosh, N. (1977). People who decide not to apply to the Open University. Teaching at a distance, 9 (July), 18-26.
- Woodley, A. & McIntosh, N. (1980). The Door Stood Opens. England: The Falmer Press.
- Woodley, A. & Parlett, M. (1983). Student drop-out. Teaching at a distance, 24 (Aug), 2-23.

World Bank. (1989). Educational Development in Thailand : The Role of World Bank Lending. Washington, D.C.: The World Bank.

Zimmerman, B.J. (1990). Self-regulated learning and academic achievement : an overview. Educational Psychologist, 25 (1), 3-17.

APPENDICES

APPENDIX A : KEY TERMS IN OPEN AND DISTANCE LEARNING

APPENDIX B : QUESTIONNAIRE I

APPENDIX C : QUESTIONNAIRE II

APPENDIX D : D213 / ST26405

APPENDIX E : RESEARCH ACTIVITIES

APPENDIX A

KEY TERMS IN OPEN AND DISTANCE LEARNING

Activities : Activities are sometimes called self-assessment questions (SAQs) or in-text questions (ITQs). They can be any form of exercises other than passively reading, watching, or listening to whatever materials are provided.

Advance organizers : Advance organizers are built into the beginning of self-instructional material to give learners a general idea of what is to follow and to help organize their learning. They can take a variety of forms such as a content list, a summary, an overview, or a statement of aims and objectives.

Assessment : Assessment is the measurement of aspects of a learner's performance in terms of knowledge, skills and attitudes.

Assignments : Assignments can be any piece of work that a learner is required to complete for assessment. It may be an exercise that is part of the learning process, or a piece of work submitted by a learner to a tutor for feedback and marking and possibly grading in order to fulfil the requirement for the award of a qualification.

Counselling : Counselling refers to educational counselling—that advice and encouragement that people need, in addition to subject-specific support, to help them be successful learners.

Course Teams : Course Teams comprise a variety of people with skills in and responsibilities for different aspects of producing open and distance learning materials.

Drop-Out : Drop-out is the term for learners ceasing to be active in their course of study before its completion.

Educational Technology : Educational technology is the study of techniques, systems, tools and media used in education and training.

Educational Technologists : Educational technologists are required to maximize the effectiveness of learning materials. They analyze the needs of the learners and deliver learning to satisfy those needs.

Evaluation : Evaluation is the process by which the institution arrives at a judgement as to the educational effectiveness of anything, from a lesson to a course or a whole curriculum.

Face-To-Face : Face-to-face components of open and distance learning are those occasions on which a learner, or group of learners, comes together with a teacher or tutor for a planned learning experience.

Higher-Order Learning Skills : Higher-order learning skills are embedded in engaging actively with learning materials and take a deep approach, rather than with general techniques of studying such as note-taking, underlining, summarizing, and so on.

Learner-Centred Approach : Learner-centred approach is the approach to teaching or training which designs learning material and learning experiences to meet the needs of the learner, rather than those of the instructor, institution or subject matter.

Pacing : A basic tenet of open and distance learning is that learners have the opportunity to learn at their own pace. One helpful thing is to break the materials into chunks, units or blocks which can be studied in a day, a week or a month so that learners can see roughly where they need to be by when, given how fast or slowly they each work through the materials.

Summer School : Summer school is a chance for learners to come together for a short period of concentrated study. The time is usually used to mount learning experiences that are difficult to provide otherwise such as laboratory work, intensive computer work, field work etc.

Tutor-Marked Assignments (TMAs) : These are pieces of coursework that learners submit for marking. It is the arrangement in which learners have their assignments marked by the tutors who also occasionally meet them in some tutorial sessions.

APPENDIX B

QUESTIONNAIRE I

1. Present position _____
2. Sex () male () female
3. Age _____
4. Qualification _____
5. Have you ever participated in any training programme concerning radio production, television production or other related fields ? Please specify :
 - () radio production training programmes
 - how many programmes did you participate in ? _____
 - where did the programme(s) take place ? _____
 - in which year did you participate in the programme(s) ? _____
 - how long did the programme(s) last ? _____
 - the programme(s) was/were sponsored by _____
 - () television training programmes / workshops
 - how many programmes did you participate in ? _____
 - where did the programme(s) take place ? _____
 - in which year did you participate in the programme(s) ? _____
 - how long did the programme(s) last ? _____
 - the programme(s) was/were sponsored by _____
 - () other relevant programmes / workshops
 - how many programmes did you participate in ? _____
 - where did the programme(s) take place ? _____
 - in which year did you participate in the programme(s) ? _____
 - how long did the programme(s) last ? _____
 - the programme(s) was/were sponsored by _____
6. Have you ever participated in any training programme regarding distance education ?
 - () no
 - () yes, the programme was organized by _____
7. When did you start working at BBC/OU (STOU) ? _____
8. How many years have you been working as a producer in the OU (STOU) course team ? _____
9. In how many OU (STOU) courses have you been involved as a course team member, responsible for programme production ? _____
10. In which of these two media do you think you are more skilled ?
 - () radio
 - () television
 - () both equally

15. As a course team member, how often do you attend the course team meetings ?

- every time
 more than 50 % less than 50 %

16. Which level can you make decisions about the part of instructional message that goes in radio and television programmes ?

- all decisions made by you
 all decisions made by the course team
 all decisions made by you in consultation with the course team

17. Which factor is the most important one for you in considering the style of presentation in OU educational programmes ? Please list from the most important factor to the least (most = 1, least = 4):

- the suitability of the medium to the message
 the desires of the course team
 your own skills
 the availability of time, budget and production materials
 others _____

18. Who is the target group for the OU educational programmes ?

- OU students
 general public
 both, but the main target group is OU students
 both, but the main target group is general public

19. How many days per programme do you normally spend on the following matters :

- a. script writing _____
b. programme production _____

20. When finishing writing the scripts for OU programmes, do you have to show them to the course team to get it approved ?

- yes, all the time
 yes, most of the time
 yes, sometimes
 no, not at all

21. Where do you normally get information for script writing from ? Please list from the most to the least importance (most =1, least =5) :

- the actual text
 reference books
 course writers
 experts in such fields
 others _____

22. What is the greatest difficulty you face most in writing the scripts for OU programmes ?

- the content of the course is not clear enough to put into the scripts
 the content of the course is not finished on time so that there is not enough information to write the scripts
 others _____

23. Do you think that your work in production area is overloaded ?

() yes

() no

24. What is your criteria on how to divide the message into each medium (radio and television) ?

25. What are the main problems and difficulties you face in producing educational programmes for the OU ?

26. Do you think that the OU is using the media as well as it might in proper way ? If not, can you suggest alternative ways of employing media in distance education ?

APPENDIX C

QUESTIONNAIRE II

Please ring the appropriate answer or give your opinion in the space provided (and use extra sheet at the back if needed)

1. What do you think are main characteristics of OU radio and television programmes ? (Please ring more than one answer, if appropriate.)
- a) The programmes summarize and reiterate the course content.
 - b) The programmes reinforce the ideas presented in the written material.
 - c) The programmes provide new perspectives on the subject in a way that the units do not.
 - d) Others : _____

Please specify your answer or give some examples :

2. OU radio and television programmes are designed to be integral parts of the course units. How well connected are they in your opinion ?
- a) Very well connected
 - b) Well connected
 - c) Not very connected
 - d) Not at all connected

3. Do you think that the booklets accompanying the broadcasts (such as broadcast notes) are helpful ?
- a) Yes
 - b) No

Please give reasons for your answer :

4. What are the major difficulties you encounter with OU radio and television programmes ?
- a) The aim of the programmes is not clearly specified.
 - b) The content of the programmes is sometimes too difficult to follow.
 - c) The link between programme and course unit is not clear.
 - d) The programmes do not add anything significant to material covered in the written text.
 - e) Others : _____

What are the most significant ways in which OU radio and television programmes could be improved ? :

5. Do OU radio and television programmes presuppose too much knowledge on the student's behalf ?
- a) Yes
 - b) No
 - c) Sometimes

6. What do you think are the most valuable assets of OU radio and television programmes ? :

7. With what expectations do you listen to or watch OU radio and television programmes ? :

APPENDIX D

D213 Understanding Modern Societies

Second level: full credit

D213 is a wide-ranging introduction to sociology which analyses the historical formation, contemporary character and future trends of modern industrial society. It is interdisciplinary, going beyond the traditional boundaries of sociology and using insights and analyses from politics, geography and economics to give a comprehensive picture of the institutions and processes of contemporary social life. It is historical: it traces the origins of capitalism, individualism, the nation-state and the global economy, and it assesses the continuing relevance of the classic nineteenth-century theorists who can be said to have founded 'the science of society'. And it is comparative, examining both liberal democracy and socialist states, and assessing the influence of the West on the Third World.

An important aim of the course is to introduce original materials-classic texts and articles. A typical unit combines 12,000 words by the author with 6,000 words of carefully chosen extracts from the best historical and contemporary writers.

D213 develops many of the themes, ideas and skills of D103, the social sciences foundation course. It is suitable for students who have already taken one or more social science courses, or who have some background in history; and it is essential for those who wish to take further courses in sociology and related areas.

Content The course is in six blocks:

Block 1 The formation of modern society opens with a study of the Enlightenment and traces the emergence of modern politics and forms of state, industrialized economies, class and social divisions, contemporary culture, and the influence of the West on the rest of the world.

Block 2 turns to contemporary politics with an analysis of democratization, the state and power in advanced industrial society, citizenship and the idea of the welfare state, and new social movements such as feminism and the 'greens'.

Block 3, on the economy, discusses the global market, Fordism, shifts in traditional occupations, classes and new social divisions, and personal experiences of conflict and control at work.

Block 4, on the social dimension, examines the family and the household, lifestyles and consumption, the self and social interaction, the body and sexuality.

Block 5, on culture in modern industrial society, looks at contemporary beliefs and ideologies, the mass media and popular culture, education and the idea of the modern city.

Block 6 Modern society and its futures analyses the forces, processes and institutions that, are reshaping modern society. There are units on the environment, globalization, post-industrialism, trends in capitalism, socialism and democracy, social diversity and cultural identity. The conclusion is about understanding social change.

Assessment seven TMAs (50%), the first of which will not be assessed, and the examination (50%).

Broadcasts and cassettes Eight television programmes, eight radio programmes and four audiocassettes.

Set books The course itself is likely to be produced as four textbooks with supplementary materials.

ST26405 Distance Education

Definitions and philosophies of Open Education and Distance Education; development of Open Education and Distance Education; tasks and functions of Open Education and Distance Education in national educational development; management of Distance Education; Distance Education teaching-learning processes; academic structure of Distance Education; development of Distance Education curricula; production and development of Distance Education instructional media; Distance Education services; follow-up, management and evaluation of Distance Education; controlling Distance Education quality and standards; use of Distance Education in the Thai education system; management of Distance Education in various countries; current situation of Distance Education; future trends of Distance Education.

APPENDIX E

RESEARCH ACTIVITIES

1. Questionnaire Surveys : a) May - October 1994

2. Interviews :

- OU staff, BBC/OU producers : a) October-November 1992
b) October 1994
- STOU staff, STOU producers : May-August 1994

3. Group Participation

a) D213 National Debriefing Meeting : 12 December 1992;
University of Westminster, London.

b) Four-week training course on "Distance Learning : Designing
systems and Materials" : 12 September-7 October 1994; Institute
of Educational Technology, OU (Milton Keynes).

c) Seminar on "Revising STOU integrated multi-media system" :
22-23 March 1994; STOU (Thailand).