PERSPECTIVES ON DISTANCE EDUCATION

Student Support Services: Towards More Responsive Systems

Report of a Symposium on Student Support Services in Distance Education

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The Commonwealth of Learning

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Student Support Services: Towards More Responsive Systems
Report of a symposium on student support services in distance education convened by The Commonwealth of Learning in Delhi, June 21–27, 1992

Robert Sweet (Lakehead University, Canada), Editor


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1700 – 777 Dunsmuir Street, Box 10428
Vancouver, British Columbia
Canada V7Y 1K4

Telephone: 604 660 4675
Telex: 04507508 COMLEARN
Fax: 604 660 7472
PREFACE

This report summarizes the results of a symposium convened by The Commonwealth of Learning in Delhi between June 21 and 27, 1992. The symposium was entitled "Models of Student Support Systems in Distance Education" and consequently was oriented more towards policy than practice. Nevertheless, the deliberations were anchored in the personal experiences of participants and their institutions, which lent an especially lively tone to the discussions. These centered on the institutional case studies presented by representatives from the four open universities in India, the new distance education programme at Bangladesh's national university, and the institutions in two non-Commonwealth countries, Thailand and Indonesia.

The report is in two parts. The first reviews the literature associated with recent developments in postsecondary distance education. The literature review builds a context for support service change by outlining developments in the mandate, operating principles and practices, and curricular emphases of the distance teaching universities. The literature review not only introduces the case studies but informs their interpretation and the recommendations of the participants at the symposium.

Generally, the literature review shows that, to the extent that support services reflect changes in the institutions of which they are a part, their direct support activities must include the intellectual and personal development of students as well as their problems. This means an expanded role for the traditional support service. Where energy and resources previously were directed exclusively to helping the distressed student, there now is a requirement to redefine the tasks of advising and tutoring to better support the instructional transactions required of an altered view of learning — one that sees students as actively engaged in constructing meaning and shaping a personal understanding of their studies.

The second part of the report presents eight case studies that describe the operation of student support services at the open universities represented at the symposium. The case studies are followed by a summary of issues raised in the discussions of the cases presented. The report concludes with a list of research priorities aimed at the development of more responsive support services.

The issues and trends revealed in the literature and the stated experiences of the participants clearly intersect. While the cases reflect the constraints (and opportunities) of day-to-day support service practice in South Asia, their concerns coincide with those expressed in print by researchers, theoreticians, and policy analysts. In particular, both the literature and the cases document attempts to make student service systems more responsive to the needs of learners.

Robert Sweet
School of Education
Lakehead University
Thunder Bay, Ontario
Canada
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PART 1

STUDENT SUPPORT SERVICES: DIRECTIONS FOR CHANGE

This introduction to the case studies presented at the 1992 New Delhi Symposium on student support services in distance education proceeds from two assumptions. First, student support services reflect the operating principles and practices of the distance education institutions of which they are a part. Second, those operating principles are experiencing a fundamental change. They are moving away from the traditional "industrial" model that is characterised by the course design team and the production of instructional packages towards a more "distributed" model based on study centres or communication networks. These allow greater interaction among students and a more obvious role for the individual teacher (Kaye and Rumble, 1991). These changes in operating principles are seen in the mandates, organisational arrangements, and curricular formats of distance education institutions.

But it is in the curriculum area that change is most obvious and has the most direct implications for student support services. Coincident with the movement from industrial to distributed model is a curricular shift from what Boot and Hodgson (1987) term the "dissemination" approach, concerned with the effective distribution of information, to a "development" approach, which takes as its primary purpose the intellectual and personal growth of the individual. The bases for the development approach include a reconsideration of the position of students in the instructional transaction — one which views them less as recipients of information and more as active participants in the learning process. A further change in perspective involves adoption of an essentially constructivist approach to curriculum development. This involves the use of relevant instructional designs that are linked to the personal situations of students, especially to their work and career expectations; and more social or interactive arrangements for learning. Interactive learning can occur in mediated settings available through audio and computer conferencing technology or in face-to-face situations as provided in study centres.

The implications for providing student support services according to the development approach to distance education are as follows:

- Support services need to maintain their involvement in the remediation of student problems but, at the same time, they must become more active in promoting the intellectual development and well-being of students. The latter approach suggests that the traditionally distinct advising and tutoring tasks be brought into closer alignment and, in some situations, be combined in the single role of an "academic counsellor".

- The focus for this altered role is the promotion of interaction among and between students and instructors through either mediated or face-to-face means.
The arguments underlying the recommendation for a changed support service role are set out in this introduction to the case studies presented at the New Delhi Symposium. This is done in three ways, including:

- summary of the student support literature reviews;
- overview of the institutional context for change; and
- description of the elements of a responsive support service.

STUDENT SUPPORT SERVICES:
FOCUSING THE DIRECTION OF CHANGE

The starting point for this overview is the Commonwealth of Learning Roundtable Report on student support concluded the previous year in Vancouver (Croft, 1991). The report of this meeting, which included a comprehensive literature review, is a representation of the student support field as it currently exists. The following section therefore is limited to a summary of literature reviews comprising conference proceedings, symposia, and special collections relating directly to the support service topic. The reviews themselves provide a set of indicators or milestones which mark the evolution of student support service theory and practice. Further, as summaries of the important research and position papers in the field, they reveal the elements that together form the various support service structures. Organising the field on the basis of the existing literature allows an examination of those aspects of support whose greater development promises to maximise the effect of change. Finally, the literature reviews serve to document the progression towards a higher priority for student services in the policies and activities of distance education institutions.

Sources

A limited number of reviews of the student support service literature exist. These were identified through a search of the ERIC system, the ICDL database, and a systematic review of collections from ICDE conferences and symposia on support services or counselling. They are outlined below, followed by a brief summary of the more obvious themes in a schematic of the essential elements that comprise the field.

Guidelines and Handbooks

For the most part, guidelines and handbooks are practical “how-to” manuals, but some include reviews of the field and their recommendations are based on a conceptual framework or frameworks. Three of the more representative and comprehensive references are Lewis (1984), Williams (1980), and Bailey (1987).

Lewis (1984) begins with an assessment of the kinds of support distance learners need, and the stages in their educational programme when the various forms of support are most required. While tutoring is the central concern of this “open learning guide”, other aspects of student support are included. However, the division between advising and tutoring is maintained. Lewis writes a section on “how to choose, train, and monitor tutors” from the institutional perspective. As well, the author extensively lists further material and background reading in specific applications such as telephone and audio-cassette use.

From the extensive REDEAL research programme undertaken at Athabasca University, Williams (1980) produced a tutoring manual to improve the interpersonal skill of the
telephone tutors that the university employed. An interesting feature of the publication is its conceptual base: the tutoring practices that Williams recommends are based on the work of Carkhuff’s human relations training approach (1969). Also, the recommendations contained in the manual were field-tested in the REDEAL research programme with the effects of training sessions measured in actual exchanges between students and telephone tutors. A variety of data were gathered and analysed, including tape analyses of transcripts. Of particular interest is the inclusion of interpersonal communications skills as an essential requirement of the tutoring function. In doing so, the REDEAL definition of tutoring broke with established descriptions in which personal and supportive relationships were emphasised only in the counselling function. In the REDEAL model, tutoring did include content expertise and pedagogical skill, but interpersonal communication skills were seen to be essential to effective academic advising.

Bailey’s (1987) guidance manual is perhaps one of the most comprehensive and detailed of its type. It is interesting to consider Bailey’s (1987, 33) definition of “guidance” as the term used to describe the support service function. As defined, it involves a range of processes aimed at helping individuals become more self-reliant and more able to manage their own personal, educational, and vocational development. In this support scheme, guidance involves the following seven distinct sub-processes:

- **Informing:** Giving clear, accurate, unbiased, and relevant information to the individual in a form and at a pace that is most useful to him or her.
- **Advising:** Making suggestions to the individual based on the helper’s own knowledge or expertise.
- **Counselling:** Offering the individual a relationship based on trust and acceptance within which he or she can explore issues relevant to development and can carry through decisions.
- **Coaching:** Creating or structuring a learning experience so that the individual can practise and gain new knowledge, skills, or perceptions.
- **Assessment:** Gathering and giving information about the individual or about specific aspects of the individual (abilities, performance, aptitudes, values, interests, and so on).
- **Advocacy:** Taking action on behalf of and with the agreement of the individual.
- **Feedback to Systems:** Providing information to organisations on the experiences or problems of individuals that require changes in the system.

Bailey (1987, 34) also states what guidance is and is not, thereby providing an overall sense of purpose to the various activities of the service. In her view, guidance is neither problem-centred, based on a medical model, nor authoritarian in nature. Rather than being solely concerned with problems and learning blocks, it concentrates on personal growth. As well, guidance is not based on a “pathological” view of individuals with conditions to be cured; rather it is based on normal human development. Finally, guidance is not something to be dispensed by experts but is based on an equal relationship and the belief that individuals have the capacity to help themselves.
Virtually all aspects of the support service system are included within Bailey’s concept of guidance, and special overlapping relationships with other distance education functions such as marketing, administration, and tutoring are elaborated. Tutoring and guidance are distinguished, in Bailey’s view, by their respective concerns: where tutoring is often narrowly focussed, short-term, and tied to a specific learning task, guidance is directed more towards long-term personal, vocational, and educational matters. But the distinction is essentially conceptual; in practice, it is a distinction of emphasis. In open learning systems tutors may need subject expertise plus some level of guidance skills (Bailey 1987, 148).

Conferences

The most obvious general review of distance education activity is the International Council for Distance Education (ICDE) World Congress that occurs every three years. The value of the congresses is that they set support issues within the broader context of general distance education issues. Sixteen such congresses have been held, with the most recent in Bangkok in 1992. In many ways, however, the proceedings of workshops and other topic-specific conferences are more informative sources when assessing the state of student support practices over the past decade. For example, the United Kingdom Open University’s series of conferences on student counselling has dealt with some of the major themes in the student support field. As the editor, Alan Tait, recounts, the first two conferences were forums for organisational thinking on a dimension of distance education which, to that time, had been neglected relative to the design and development of course material (Tait 1983, 1987). Subsequent conferences were theme-based (Tait 1989, Tait and Messer 1991). The “Interaction and Independence” theme of the 1989 conference resulted in a critical appraisal of policy and action since the initial presentation of the Daniel and Marquis (1979) article on the topic. This marked a significant reorientation towards the learner and the need for conversation and dialogue. In effect, the conference participants questioned the dominant “industrialised” delivery model that was centred on the home-study course materials package. Moreover, through its contribution to personalising access and completion policies, the support system contributed to the process of democratising higher education system.

The 1991 United Kingdom Open University’s conference extended thinking about the role of the student support service beyond supplemental support for the learner. Using the Empire State College, Downing College programme as a model and as the starting point for discussion, the conference explored the question: If autonomous learners were so important in the educational process, where in distance education did they appear in discussions of what was to be learned? This question reemphasised the centrality of the learner but it did so in relation to what was to be studied. In the Empire State programme, students could invent their own courses, defining — with relevant academic support and supervision — topics, problems, and projects for course credit. As an alternative to existing home study, this model offered a dramatic challenge to established views of the relationships between the institution, the student, and the curriculum, however defined. In Tait’s (Tait and Messer 1991, 2) words “... the learner has intruded into the curriculum”, and the implication that followed was that student support services need to act as facilitators of new knowledge that the student creates.

Of course other conferences publish proceedings or have their activities reviewed in the journals. These conferences offer insight into current support service issues. For example, the regional conference held in Colombo in 1991 which dealt with “Face-to-Face Components in Distance Education” was reviewed by Ismail (1992). Her conference summary reported that greater interaction between and among instructors or tutors and students was assumed necessary to improve programme quality. Quality was presented as a feature of education and training that would improve career mobility. The
long-term benefits of education to the recipient's career work were also presented in the context of the student as consumer, a view with implications for change not only in providing student support but in the general operation of distance education institutions.

**ERIC and ICDL Reviews**

The ERIC and ICDL databases are accessed regularly by researchers and are available in various formats: fiche, hard copy, disc, and online. The online format includes distributed arrangements: the ICDL and ERIC databases, as well as thousands of other scholarly collections, are available online via the global Internet system. Both ERIC and ICDL sources have been employed to generate recent student support reviews. Most are straightforward summaries organised under broad and traditional headings (see, for example, Wright 1991). However, two recent reviews are arranged with unique structures. Dillon and Blanchard (1991) developed their review around a framework suggested by Moore (1987). It involves three intersecting areas: instructional support, direct student support, and communication support. Croft (1991) reviewed the relevant literature to assess the range of support functions in distance education and organised it according to a standard scheme involving the three phases through which students pass (entry, independent study, exit), together with a further division between administration and direct support for learning.

The Dillon and Blanchard review emphasises technology and its relation to systems that promote greater interaction. The components of this model include the institution (teacher), the student, and the media format, which may vary in terms of their potential to offer interactive communication among the participants. Various combinations of participation levels and interaction are related to curricular goals, which are positioned along a continuum of complexity.

Croft's review is more wide-ranging and reflects the variety of literature available. Croft posed a number of questions concerning the development of policy issues in the support field. Those most directly related to the administration of the support enterprise include the following:

- To what extent should administrative convenience control the organisation of the support service?
- To what extent is it possible to provide economic and flexible support for practical and project work?
- Is it possible to assess the effectiveness of such services?

Other questions are related more to the learner's experience, including:

- Can the support system tailor services to the particular needs of students?
- Should these services be made compulsory?

Overall, these are support service concerns that might have been reported many years ago. But they have an obvious immediacy in view of the increasing expectations that distance education can offer both improved access and quality of instruction to those who wish education and training at the postsecondary level. Some of the questions, however, result from developments in areas such as communications technology and the recognition of equity groups.

As indicated, both reviews draw on the various literature sources, the most recent of these being the ICDL database. For the purposes of this overview, it is useful to examine its applicability to the student support area, at least as determined from Dewal's (1991)
recent assessment. The array of student support topics contained in the database was tabulated and assessed by topic. In adapted form, the topics and proportions are reproduced in Table 1.

Many of the topics represent the established concerns of student support services although they do not address all of the administrative issues raised by Croft (1991). The greater number are concerned with direct student support matters. The largest category of these — the learner characteristics category — includes references that deal with the special needs of adult learners and with gender issues.

Table 1. Support Service References in ICDL Database

<table>
<thead>
<tr>
<th>Topic</th>
<th>Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Guidance and Counselling</td>
<td>15</td>
</tr>
<tr>
<td>Computer and Telephone Conferencing</td>
<td>15</td>
</tr>
<tr>
<td>Tutors and Counsellors</td>
<td>13</td>
</tr>
<tr>
<td>Learner Characteristics</td>
<td>26</td>
</tr>
<tr>
<td>Study Skills</td>
<td>7</td>
</tr>
<tr>
<td>Dropouts</td>
<td>9</td>
</tr>
<tr>
<td>Evaluation</td>
<td>2</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>13</td>
</tr>
</tbody>
</table>

Adapted from Dewal (1991).

Structure

The Croft (1991) analysis of the field distinguishes between the administrative and learner support functions of a student support service system. Table 2 illustrates this division together with the three-stage sequence of student support services. Within this matrix, various support tasks are positioned and, while they do not exhaust the list of possibilities, they do include the more salient support functions.
Table 2. Structure of the Student Support Field

<table>
<thead>
<tr>
<th>Structure</th>
<th>Educational Sequence</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Entry</td>
</tr>
<tr>
<td>Administrative Support</td>
<td>Registration</td>
</tr>
<tr>
<td></td>
<td>Orientation</td>
</tr>
<tr>
<td></td>
<td>Resources</td>
</tr>
<tr>
<td>Learning Support</td>
<td>Study Skills</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2 is a standard representation of the structure and functions of the support services available in most distance education institutions. The columns of the table represent the phases or stages through which students are generally presumed to pass (see, for example, Lewis 1984). The rows partition the institutional functions and features of the support service into those of an essentially administrative nature and those related directly to support of the learning process.

As they move from stage to stage in their educational experience, students come into contact with the rules, regulations, and rituals that comprise the “system”. As well, they meet individuals employed by the institution who perform various tasks, each more or less related to the student’s successful entry, adaption to, and eventual conclusion of a course of study. Nicholson (1977) discusses the counselling functions associated with the student’s progression through a course of study as occurring at three points, termed: “induction crisis”, “differential transit”, and “settled connection”. These, or similar terms, are employed by other writers to describe the relationship between students and the support service system. While each of the three phases has its own counselling tasks, the actual activities contained within the sequence varies by programme and even by the definition of “counselling” employed. Bailey (1987), for example, further differentiates the entry phase into “pre-entry” and “enrolment” in order to concentrate support concerns on, initially, informing the student of the options and implications of various programme choices. At the same time, an exploration of individual needs and priorities provides an assessment of the student’s motivations in enrolling.

Nicholson, like other writers, distinguishes between the tutoring and the advising or counselling roles. These roles have typically been considered separate (Daniel and Marquis 1979; McInnis-Rankin and Brindley 1986) or even more finely partitioned (Bailey 1987). The further distinction between administrative functions and direct support for learning is useful in that it focuses the concerns of support services and steers policies in directions that will have the greatest benefit for students (Nunan 1992). Croft (1991) also dimensioned her review of support service functions in this way, and Bailey (1987) developed an overlapping set of activities for guidance and administrative responsibilities in distance teaching institutions. The importance of strictly administrative tasks is seen neither in the weighted scheme of ICDL references nor in the other review sources. Obviously such activities are essential to the effective operation of any institution, but matters of direct student support appear to be of greater concern to the field.
A rationale for emphasising particular elements of the system, along either the administrative or learning support dimension, is not immediately obvious in the student support literature. For example, some underlying support themes do not appear in the schematic at all. Nor are these given particular significance in the topical summary of the ICDL holdings. Important issues such as gender and technology, among others, are not included in our representation of the support system; and their potential to influence the suggested direction of change is not recognised by the weighting assigned them in the distribution of ICDL articles. Nevertheless, some important trends are emerging in the literature.

Arguments over the relative emphasis given system interaction and independence set out by Daniel and Marquis (1979) still continue in, for example, the exchange between Brindley and Jean-Louis (1990) and Thompson (1991), who debate the merits of mandatory support services for students. In both cases, the assumption is that at least some students lack the skills of independent study and need counselling. But “study” as defined assumes that the burden of instruction is borne by the traditional course package and that counselling would augment this vehicle where needed. More recently, however, Nuy (1991) studied problem-centred approaches to instructional design in distance education settings and suggested that students need varying amounts and kinds of direct academic support in the less structured and more highly interactive environment required of a problem-based curriculum. This view reflects more accurately the emerging concerns in the literature, underscoring as it does the need for highly developed interpersonal and communication skills in this setting, and hence the importance of a more direct role for academic advisers in the cooperative social structures generally associated with problem-based learning.

Future developments in support service operations then involve the possibility and perhaps necessity of shifting the concerns of support services away from the amelioration of individual student problems towards a more obvious involvement in the interactive instruction process. This argument derives from changes in the curricular forms and instructional designs employed by the distance education institutions themselves. These changes require an increased emphasis on and allocation of resources to the direct support of the learning process. Within the developmental approach outlined by Boot and Hodgson (1987), Tait (1988, 97) considers the role of tuition and counselling to be essential in encouraging students to make sense of knowledge and information on their own terms. The implication is a merged tutor-counsellor role and a greater degree of interaction between student and institution. This alters the established task of most support services, which concentrate their efforts on preventing dropouts, assisting weaker learners, or counselling individuals with personal problems. Such an approach limits support to a minority of students, and emphasises pathological characteristics. To the extent that support services become less involved with the remediation of student problems and more active in promoting the intellectual development and well-being of students, they redefine their traditional role as a supplementary service to the course package (see also Graham and Harrower 1986).

Paul (1988) has represented that support services must reposition themselves in the institution. While the academic faculty of universities take precedence in making most decisions, their greater political power relative to support services need not mean that the support sections of the institution are permanently relegated to a position of secondary importance. With one exception, however, Paul’s strategies involve little change to the separate institutional roles of advising and academic sections. For example, enhancing the scholarly credentials of support personnel and developing the political acumen of the support service administrators preserves the existing institutional structure. Paul does describe as an alternative the distribution of support service personnel across the various academic departments but acknowledges the probable subordination of these individuals
and their support role to academic and administrative priorities. Underlying the
difficulties associated with each of the proposals is a tendency in the universities to
separate the cognitive from the affective. This is seen in the tradition of scholarship and
research at universities, a history which ensures that status accrues to the academic staff
and not to those engaged in an essentially supportive role.

Nunan (1992, 2) sees as one alternative to the disaggregated and specialised functions of
most existing support services a more integrated and comprehensive system. Assuming
that student support is an "all pervasive and central educational component of distance
education", then:

...the institution would design and make available a supportive
network of preparatory courses, study skill development opportunities,
personal and course counselling, learning support through flexible
access to resources including individualised support from the
teacher/facilitator, all constructed in ways which avoid deficit views of
learners and which students can draw upon to meet their needs.
[emphasis added]

This alternative advances the notion of an integration of advising or counselling and
tutoring by suggesting a merged role of the advisor/guidance counsellor with that of the
tutor. The South Australian College of Advanced Education's approach to support
services is of particular interest. The assumptions of this institution's curriculum policies
include:

- the holistic nature of programmes; and
- a view of students that is responsive to their individual concerns and particular
  learning contexts.

These views recognise the variability among students' personal learning goals and the
necessity to integrate the support functions. In relation to integrated support functions,
King and Forster (1985, 102) state: "... instruction and support activities would seem to
overlap to the point where distinctions become superfluous". This seems to be a theme
emerging from the support services literature, driven mostly by the actual or prospective
changes in the general institutional policies and practices of distance education
universities and colleges. To the extent that this change occurs, support services then will
move from the margin to the centre of educational provision, at least in those institutions
concerned with the personal and intellectual development of their students. That this is
not always the case is pointed out by Brindle and Fage (1992) in their analysis of
student support systems at Athabasca University and at the United Kingdom Open
University. At the United Kingdom Open University, two models of support were
debated: the first considered that every tutor should also act as a counsellor; the second
would have assigned a counsellor to every student, with the responsibility of supporting
them through their academic career at the university. The support system actually
established was a compromise that attempted to balance the following features (Tait
1992):

- local and accessible contact;
- linking to the tutorial role;
- programme specific knowledge; and
- continuity over years of study.
Of particular interest is the linking of counselling and tutoring roles in this system. 
Brindley and Finge (1992, 15) describe this as "... local counselling support should be 
backed by stronger links between students and tutors and between counsellors 
and tutors".

INSTITUTIONAL CONTEXT FOR CHANGE

As do all postsecondary institutions, distance education universities must react to 
changes in the needs of their students and other interest groups in the society. Some of 
these pressures are expressed in the changing patterns of enrolment: factors such as the 
necessity for lifelong learning, geographic mobility, and the recognition of equity groups 
have combined to significantly increase the number and variety of part-time students. 
Responding to these changes has meant that distance education universities have had to 
reshape their mandates, organisational structures, and curricula. These shifts in demand 
and institutional response imply corresponding changes in the nature of student support. 
The institutional context for this changed support role is outlined in this section, where it 
will be seen that the movement to a student-centred instructional model represents the 
anticipated form in which student support will be provided.

Especially salient developments in the general distance education literature describe the 
shift to a student-centred model of provision. As well, changes in the mandate, structure, 
and operating principles and practices of distance education institutions are described. 
Both have implications for the curriculum design of recent concepts of knowledge 
aquisition and use. These "transmission-to-transformation" interpretations are gathered 
together and given more detailed expression in the institutional profile suggested by Boot 
and Hudson's (1987) distinction between dissemination and development. The 
following analysis is conducted within the bounds of theory and practice found in the 
published literature, where this is appropriate to the concerns and levels of discourse 
found in the student support literature. The general distance education literature does 
infer, imply, and on occasion refer directly to more fundamental, even ideological, 
themes. But as Guy (1990) points out, distance education for the most part has escaped 
much of the critical analysis of the "new sociology" represented by writers such as 
Bourdieu (1973), Foucault (1977), and others whose writings are employed in critiques 
of current educational practice. The emergence of articles debating the applicability of 
such notions as post-Fordism likely marks a change in this condition.

The Mandate

The principles of open learning and the practice of distance education were initially 
established to improve accessibility to postsecondary education. The essential elements 
of most institutional access policies included rolling enrolment dates, the removal of 
prerequisites, and the convenience of home study — the latter designed to accommodate 
the personal situations of students with job and family responsibilities. More recently, 
the concept of accessibility has been expanded from access-of-entry to include access-of-
results. Morrison (1989) and Paul (1986) describe this as an obligation: where 
nontraditional students are granted admission to an open learning programme, the 
institution is obligated to provide the necessary support to ensure achievement and 
completion. However, issues of programme completion raise other matters concerning 
the utility of knowledge and the transfer of skill. These are discussed in greater detail 
later but require brief comment at this point.
The student support literature suggests a more direct role in support of the learning process. The potential for contradiction exists in the various roles that student support service personnel play. Under open entry, support for inadequately prepared students is obviously necessary. At the same time, however, curricular changes require greater interaction among instructors and students; and these demand that tutors possess many of the skills previously employed only (or largely) in the advising role. A recognition of the extent to which curriculum changes influence instructional support and counselling tasks is seen in the call for greater attention to the problem of achievement and completion. It is also seen in the relationship between the academic outcomes of the distance education programme and their relevance to employment opportunities for the student (Sweet 1991). The access concept, then, has been considerably elaborated to include entry, completion, and transition to the workforce — with an expanded role implied for student support services. This role turns on the notion of customer demand or what Sewart (1992a) has termed the "service sector approach". Essentially, it assumes a view of the student and the other clients in the society as consumers who are able to demand a range of educational options. These are in a form more closely related to personal, economic, or group needs than to the structures of the educational institution and the academic disciplines.

Access and Equity

Distance education has historically implemented the principle of openness or, at least, removed barriers to access. But the identification of groups who deserve special status has occurred outside distance education. Government policies aimed at establishing equality of opportunity have in some countries been quite specific in designating ethnic, gender, or employment groups who are perceived as disadvantaged by educational policies. Such policies mark a shift from attempts to increase postsecondary participation rates to enhancing access for specified target groups. A further development in those policies is the monitoring of group participation in particular programmes: for example, the number of women enrolling in math and science courses.

An emerging literature deals exclusively with "disabilities" in the general higher education literature. These appear to attend to issues of general awareness of need and to institutional access barriers. For example, Bursuck et al. (1989) and Sergent et al. (1987) present the results of national surveys of available services. Interpretations of trends in these services suggest their greater availability and appropriateness (Statistics Canada 1990; Wilchesky 1986). Discussions of institutional barriers to participation by the disabled and the means to overcome them have been reviewed by Hill (1992). Some specific references to the needs of the disabled learner have appeared in the distance education literature (see, for example, Cutress 1988).

The literature on exceptionalities in higher education is not limited to those with physically or intellectually limiting conditions. Access for the elderly is dealt with in the general higher education literature (see, for example, Lawson 1992) as well as in the distance education literature (Dessaint and Boisvert, 1991). The case for a distance education role in meeting the special learning needs of aboriginal people has been made by Roberts, White, and Burge (1990) and in an annotated bibliography, The Native Learner and Distance Education (1988), prepared by the Confederation College of Ontario.

Women's groups have been the most articulate in advancing the cause of access to equal education. Their arguments have occurred within the context of a larger women's movement involving social, political, and economic programmes. Education is but one vehicle for social change, although it is generally recognised as an important one. The value attached to education as a means of personal liberation, social mobility, and
constructive social change is apparent in the writing of women from developed and
developing countries. One of the more extensively reported topics in this literature is
that of "women’s studies", which is seen as a particularly powerful vehicle for learning
and as a focus for group communication and networking (Burge 1988; Coulter 1989;
Neale 1992). While numerous publications deal with women’s educational issues,
relatively few explore the potential for distance learning to further access to basic and
higher education. A comprehensive publication on women and distance education is
Faith’s (1988) compilation that includes accounts of students engaged in distance
learning as well as the interpretations and perspectives of professional women working in
the field as faculty and administrators. More recently, the Journal of Distance Education
(1990) published a special issue on women in distance education that presented a range
of topics, among them an analysis of regional (and national) barriers to access. Although
modest in the volume of publication, women’s learning at a distance is a field in which
assumptions are being rethought and elaborated. For example, Faith (1988, ii) described
the anomalous impact of distance education on women’s lives: while encouraging
individual growth and development, it also can work to further confine women to the
house and their traditional domestic role. More recently, Kirkup and von Trummer
(1990) have discussed the topic of women’s isolation but arrive at a different conclusion
than Faith, albeit from a somewhat altered perspective. To these authors, the requests for
personal contact and support networks from women learning at a distance do indicate a
“felt sense of isolation”, but this is not necessarily associated with negative personal
circumstances:

...as for example, being housebound with young children. It can,
rather, emerge from a positive desire to be connected with others. It
comes out of a life in which one’s relationships with others and the
well-being of others are a crucial part of personal development. It is a
positive way of being rather than an immature state on the road to
"separation" or "independence". (1990, 29)

The need for affiliation, as well as achievement, is characteristic of all learners, but as
Burge, Howard, and Ironside (1991) point out, most distance education strategies are
being directed towards achievement as an end. Successfully completing course require-
ments becomes more important than meeting the affiliation drives that promote effective
and comfortable learning. The attention women’s groups have drawn to issues of
affiliation are important in constructing a learner-centred view of distance learning and
support services. As well as developing arguments for a role for distance learning in the
lives of women, these writers have elaborated some basic educational concepts. For
example, the need for differentiated educational programming was argued by Thompson
(1983, 93), who did not see that access to the existing educational system would advance
the cause for women:

It is not merely a question of improving the chances of women to
compete in a man’s world... but to demand a radical change in the
nature of what is being offered. This implies at least an equal share in
its control, at least an equal share in the determination of what counts
as valuable knowledge within it, and at least an equal recognition that
what is important about women’s experience of the world is as valid as
men’s. Without such real equalities, notions of “equality of
opportunity” are essentially rhetorical.

Burge (1988) then developed Thompson’s position in a reanalysis of the concept of
“andragogy”, a concept that assumes a learner-centred approach to instructional design
and organisation. Burge and Lenskyi (1990, 24) concluded that, while andragogical and
feminist teaching share many features, including the validation of the learner’s personal experiences as a resource for learning, they nevertheless differ:

What feminists have termed “feminist pedagogy” goes beyond andragogy because it takes the specificity of women’s experience into account. Female learners come to class with specific personal histories, learning styles, and expectations that are shaped, to varying degrees, by their experiences as girls and women in a society characterized by male power and privilege.

Whether gender is a necessary or even supportable distinction in the conditions of learning required by adult students (Manicom 1993) or distance learners (Garrison 1988) is subject to some debate. In any event, the feminist position can be considered a voice for institutional change which, when joined with the voices of other groups in society who have not been well served, can work to alter those policies and practices of the distance education universities that create barriers to access and opportunity.

Access and Achievement

A concern with access-as-results (Morrison 1989) requires a commitment to ensure that students receive the guidance and support they need for academic achievement. This concern is often accompanied by calls for more adequate support services. Underlying the notion of an institutional obligation to support students as they attain course and programme objectives is a reorientation of attitude towards what Levin (1992, 268) terms a “standard of success instead of the bizarre notion, so common in education, that many failures are an indication of quality”. Changes in institutional views about their responsibility to support students as they meet reasonable academic standards are prerequisite to support service policies that effectively encourage students to complete their courses.

Another aspect of the access concept concerns the relationship between curricular choice and the more general reason for enrolment. Typically, students enrol in order to get a better job or to advance in the workplace. Career counselling in the traditional support service model has long recognised this reason for enrolment. However, students may best realise the instrumental value of an education when guidance is embedded within the curriculum itself. For example, the value of cooperative learning arrangements between educational institutions and business and industry is increasingly apparent. These developments are consistent with the need for lifelong learning in promoting career maintenance or mobility. They also accept the personal situations of the student as legitimate sources of knowledge (Boot and Hodgson 1987). These extensions to the meaning of “accessibility” are discussed below in terms of programme completion and relevance or transition to the workforce.

Completion

Two questions are most often raised in relation to programme completion:

1. How persistent are students in pursuing their education?
2. Is the material necessary for university-level academic work available?

The term “persistence” is used because there is evidence that many people do not “drop out” of school but rather return at a later date or enrol in some other programme to further their careers or satisfy their interests. Tinto’s (1975; 1982) formulation is perhaps the most widely used framework for interpreting retention. The Tinto model assumes that institutional and social integration are essential to student satisfaction. In this sense, it is
a model of persistence rather than dropout (see, for example, Cabrera, Castaneda, Nora, and Hengstler 1992). The Tinto model has received considerable research attention and conceptual elaboration in the distance education literature (Bernard and Amundsen 1989; Kember 1989). One overview of the relationship between institutional practices and student persistence was conducted by Taylor et al. (1986, 86), who gathered information on students from five institutions in various countries. As the authors report, no consistent trend in the data was found and the study failed to generate "consistent empirical evidence that would suggest a generalisable principle upon which distance education systems could be based". It may be that the conceptual basis of the model, which sees university education as part of a "rite of passage", is more appropriate to the younger student population (Tierney 1992). It requires a substantial reworking if it is to explain the behaviour of adult students in a distance education setting (see, for example, Kember, Murphy, Slaw, and Yuen 1991).

Tinto (1975) suggests that an institution's response should not be limited to the problem of retention but should consider also the broader goal of student development. Tinto (1982; 1990) offers a number of guidelines, including the following recommendations:

- Universities are social and intellectual communities in which it is especially important to have frequent and rewarding contact between students and faculty and staff.
- Effective retention involves a commitment to students and care for them. It is student-centred.
- Retention efforts should reflect the unique character of the educational mission of the university.

A second area of concern in promoting student attainment is the availability of resource materials needed for university-level study and scholarship. Recent reviews of the literature on off-campus library services by Burge, Snow, and Howard (1988), Shklanka (1990), and Latham, Slade, and Budrick (1991) indicate the very limited extent of research in this area. Working with case studies and other, largely descriptive accounts, Latham et al. summarised the various models of off-campus delivery and noted that all involved to some degree the elements of effective delivery that Slade (1987) summarised:

- core collections placed on-site with special funding to purchase duplicates of items on the main campus;
- mail delivery of special requests;
- telephone or mail reference service;
- special telephone lines for off-campus students;
- advertisement of library services;
- a librarian designated for off-campus services;
- adequate support staff;
- bibliographic instruction to off-campus students;
- online bibliographic search services;
- interlibrary loans;
- free services;
- assessment of user needs; and
- evaluation of services.

Burge et al. (1988) were interested in developing an adult, learner-centred model of library services. This model is directed towards the "autonomous learner" end of Howard's (1985) continuum. As autonomous learners, students are released from the pre-selected package of reading materials or the assigned reading list to undertake
research on a topic that may be of their choice but certainly allows the freedom to find and select resources from the library. Despite this model, facts from the few surveys available indicate that few students possess these independent learning skills (Shklanka 1990, 8). Burge et al. (1988), nevertheless, were able to state the organisational requirements of a learner-centred delivery model. This was their "developing partnerships" scheme, in which library staff work with distance educators to integrate the seven elements of the system, including: programme and course planning, services marketing, resource development, data access, technical communications, services and, materials delivery, and professional development.

Garrison and Baynton (1987) make an interesting distinction between support for the learning process and support for the mediation (communication) process in their discussion of resources that both distance learners and their on-campus colleagues require. Resources that are unique to distance learning include:

... the resources of the learning process [that] include the availability of access to courses, teachers or facilitators, learning materials, library facilities, media equipment and community experts. The need for resources associated with the mediation process results from the geographic distance between the teacher and the learner, and requires some type of mechanical or electronic transfer of information through telecommunications or mail to carry out the two-way communication in the learning process.

While this discussion omits the concept of the study centre as a communicative vehicle in the educational transaction, it nevertheless is useful to highlight the communication vehicle (whether electronic or mail) as the means by which off-campus students obtain access to resources.

**Transition**

The issue most closely associated with transition to the workforce is the utility of the training students receive as they attempt to enter the job market. The question of relevance is central to the ongoing debate in the postsecondary education literature over the relationship between education and training and the appropriate role of universities. To the extent that the university acknowledges some vocational interest and responsibility, discussion then centres on the utility of task-specific training as opposed to the development of more generic skill sets. A closely related matter concerns the value of including a general educational dimension (for example, the humanities) to professional education or training.

Sweet (1991) discusses support policies in the context of an access continuum that spanned the entire student's experience from entering the institution entry through completing the programme and entering the workforce. The model for this expanded view of accessibility and opportunity was private correspondence schools. But their curricula are very task specific and frequently criticised as preparing students for job entry rather than career mobility. Increasingly, employers are calling for graduates of postsecondary programmes to possess the ability to learn, to welcome and adjust to change, and to be flexible in their approach to the demands of employment. While the requirements of employers, as well as the human resource development policies of governments, may not be the first priority of an educational institution, they are of some concern and consequence. Distance education institutions cannot ignore the fact that most postsecondary policy issues are debated and determined within the access-quality-funding "triangle" (Skolnik and Rowen 1984). And the balance between access and
quality is shifting as governments demand greater accountability in the general operation of institutions and in the relevance of their curricula to labour market requirements.

Hendriks (1992) defines “quality” as comprising three components:

(1) intrinsic validity, based on established evaluative criteria;
(2) the ability of the production process (of, for example, course materials) to meet technical standards of excellence; and
(3) customer satisfaction.

Customer satisfaction includes the perceived legitimacy of the distance education degree. The courses offered and the degrees awarded by distance and traditional universities may be equal; and there may even be formal recognition of the distance degree. But popular recognition may still be lacking. Students often do not view the distance education credential as equivalent. Nor do some accrediting bodies. As Kirby and Garrison (1990) point out after surveying the Deans of Graduate Studies at Canadian universities: distance education is not accepted as a legitimate educational delivery method because of the perception that it fails to support critical discourse or a community of learners, both of which are considered essential features of a university-level education. These evaluative criteria are largely internal to the education community. As previously indicated, the marketplace also operates to determine the utility of a degree or certificate.

Extending the Mandate

A broader, social implication results when distance education institutions move away from the dissemination model which Tait (1988, 98) describes as constructed to reflect “a hierarchical image of society in which authority and power reside with those who are the holders and regulators of expert knowledge”. Democratising the system goes beyond policies of access to address the need to redefine conditions of learning in ways that recognise the active role students play in their own learning. This may be seen in Apple’s (1992) description of the reactions of students to textbooks (so central to the conduct of distance education). Apple’s (1992, 10) analysis suggests that even under the most rigid industrial model of home study, recipients are not the “empty vessels” so often portrayed:

We can talk about three ways in which people can potentially respond to a text: dominated, negotiated, and oppositional. In the dominated reading of a text, one accepts the messages at face value. In a negotiated response, the reader may dispute a particular claim, but accept the overall tendencies or interpretations of a text. Finally, an oppositional response rejects these dominant tendencies and interpretations of a text. The reader “repositions” herself or himself in relation to the text and takes on the position of the oppressed . . . These are, of course, no more than ideal types and many responses will be a contradictory combination of all three. But the point is that not only do texts have contradictory elements; audiences construct their own responses to texts. They do not passively receive texts, but actually read them based on their own class, race, gender, and religious experiences.

While acknowledging an active role for the learner in knowledge acquisition, Apple’s analysis suggests that the range of intellectual interest a student displays is constrained by limits placed on the content of texts by those who decide what material is or is not admissible for study. Apple (1992, 10) concludes that a democratic process must be
established that involves "... the creation of the conditions necessary for all people to participate in the creation and re-creation of meaning and values".

Booij and Hodgson (1987, 14-15) describe the essence of the dissemination model as "open access" while that of the development model is "open curriculum". This concern with subject matter relates not only to the problems of information manipulation and control that Apple outlined, but also to the instructional issues raised by participants in the Empire State College, Downing College conferences. As discussed earlier, they explored connections between the context for learning and the meaning students give content. Under this interpretation of the development scheme, the notion of context is not limited to the interaction between learner and text but also involves the joint participation of students and instructor in dialogue (see, for example, Garrison and Baynton 1987). In Tait's (1988, 97) words:

... the mediation and interpretation of course material by the tutor (or facilitator, or counsellor) represents a central function in promoting the independence of the learner, and in supporting educational practice which can be termed democratic.

The theme of democratisation and an interpretation of interaction as involving both people and texts will be taken up in the next section, which outlines institutional and curricular changes in distance education universities.

Organisational Structure and Operation

Various operating principles and practices exist at universities involved in distance education. These have been described in a number of articles, most recently by Rumble (1992), based on differences in the organisational structures and government systems among distance education universities. These Rumble termed "distance teaching universities", "campus-based universities", and "dual-mode universities". Rumble's institutional arrangement includes the assertion that distance teaching universities possess fewer resources than dual-mode universities, or a campus-based university that decides to become a dual-mode university. Nevertheless, distance teaching universities do have special qualities, including the potential to be more flexible in their provision. Rumble quotes Perry (1976, 55), who argued that distance teaching universities would be able to "... experiment with new patterns of teaching with a freedom that would be impossible to achieve in established universities". Some of these features include unique strengths in the technology and processes of materials development and in the delivery of support services to distant students. For the most part, however, these attributes have been employed in developing an "industrialised" method of provision in which the design, development, and delivery of course materials are governed by criteria of product quality and logistical efficiency. The more obvious structural and operational changes to this approach involve processes of decentralisation and innovation.

Decentralisation

While distance teaching universities and dual-mode universities are useful distinctions in that educational policies and practices are influenced by institutional structures, the view of distance education as an industrialised form remains the predominant notion. This view cuts across all other conceptions of organisational form and pattern (Keegan 1986; Peters 1989). However, references to alternative models — those that are more responsive to student needs — appear with increasing regularity in the literature, and some are finding concrete expression in the institution (see, for example, Mason and
Kaye 1990). Kaye and Rumble (1991) refer to “distributed classroom models” as the apparent direction of change providing in distance education. These models place greater emphasis on learning in groups, on networking, and on a more obvious role for the individual teacher. This move away from the conventional model — which submerges the teacher within the course development team and which assigns the local tutor a remedial and evaluative role — the authors attribute to a number of factors:

- wider access to new technology;
- growing demand from the business community for continuing education for employees;
- increasing competition for part-time students; and
- a move towards a “post-Fordist” society with its emphasis (in the case of education) on addressing the needs of the individual before those of the institution.

The direction of change towards greater institutional responsiveness is, in the first instance, based on a reanalysis of the needs of students that reflects their changing role in the distance learning process. Once considered consumers of packaged information, students are today seen as more active participants in their learning. A view of the student as agent is consistent with recent developments in cognitive psychology where development of skill and understanding requires exercise of some measure of control over the acquisition and use of information. From this perspective, the learner is accorded greater responsibility in determining curricular means as well as ends (Burge 1988). Arguments for repositioning the learner in the knowledge acquisition process may be seen in critical assessments of the operating principles and practices of many distance education institutions. For example, changed conceptions of knowledge and its proper pursuit underlie the work of Boot and Hodgson (1987, 8) who question the legitimacy (and efficacy) of the traditional formula of independent study when they distinguish between dissemination and development orientations in the operation of distance education. Institutions concerned with the effective dissemination of knowledge consider it to be “a valuable commodity existing independently of people which can be stored and transmitted”. This interpretation characterises the traditional “industrial” model of distance education as articulated by Peters (1989). In contrast, a developmental orientation views “knowing as a process of engaging with and attributing meaning to the world, including self in it”. From this perspective, the institution’s primary concern is the personal and intellectual growth of the individual.

Consistent with the dissemination-development distinction is the “post-Fordist” metaphor used to describe the changes underway in distance education institutions. Post-Fordism has been variously described but possesses the following features: flexible systems of manufacture, customised design for specific market segments, and an emphasis on quality control. An essential element in the emerging post-Fordist economy is the need for businesses to become learning organisations. In addition to workplace learning, schools, colleges, and universities need to modify their curriculum and instruction to better equip graduates for lifelong learning and retraining (Resnick 1987). The institutional implications of the post-Fordist view are a greater differentiation of tasks and a more decentralised authority and decision-making. However, there is some evidence that post-Fordist arrangements do not always produce the expected levels of labour force involvement and commitment; and they may be even more exploitative of the worker than the old “production line” concepts of manufacture (Satoshi 1982; Parker and Slaughter 1990). Certainly, evidence exists that continuing education opportunities are available only to a limited number of workers, usually those at management level. In the distance education field, Campion and Renner (1992) warn of open learning policies that
serve such "neo-Fordist" training requirements which effectively exclude most employees. Bailey (1987) similarly describes constraints on access in her overview of various open learning schemes in Britain.

In their final comment on the application of the post-Fordist concept to distance education, Campion and Renner (1992) suggest that as a descriptor of the changes underway in education, post-Fordism may best describe only those institutions that currently are especially "Fordist" in their operation. Those that resisted the industrialising influence of the Peters model of distance education will undergo less change. And since the established universities were least likely to embrace this approach, the dual-mode universities are less affected (but see Evans and Nation 1992). The distance teaching universities on the other hand — and these are the type of institution included in the Delhi Symposium — presumably require and are undergoing significant adjustment.

Innovation

Morrison (1989) states that distance education institutions are in the business of innovation. And Rumble's (1992) distinction between distance teaching universities and dual-mode universities, and Salee's (1987) description of the distance teaching universities as strikingly innovative ventures, suggest their generally entrepreneurial nature. However, Morrison claims that a contradiction exists between the conservative academic culture and the entrepreneurial tendencies of the organisational culture that characterises distance education. Sewart (1992a) similarly has described the need for a more flexible and responsive institutional structure based on the theory and practice of the service sector industries; and, further, Sewart asserts these developments will require attaching greater importance to the support service functions of the organisation.

In any event, some innovative policies are of greater import than others in the operation of distance education programmes. Collaboration has been described as a particularly innovative policy practice characteristic of distance education universities (Sweet 1986) and this notion has been more completely developed by Konrad and Small (1989) and by Moran and Mugridge (1993). However, given the depressed economic situation in which most countries find themselves — large debts, high levels of unemployment, and a rapidly changing world economy — continued pressure from governments and other agencies sponsoring educational programmes require consistent and incremental improvements in performance. At the same time less and less funding is available. In the decentralised, post-Fordist period this requires that postsecondary institutions be especially venturesome in their planning.

Michael and Holdaway (1992, 17) distinguish three aspects of "entrepreneurial higher education": partnerships with business and industry; fundraising; and, of more immediate interest, "the structuring and administering of a postsecondary institution to reflect a market orientation and less dependence upon government funding". The market or demand model is a policy direction that governments can pursue in various ways. These include: privatisation through transferring assets and services to the private sector; or simply encouraging publicly funded institutions to operate on a cost recovery basis, at least in part.

Privatisation, a world-wide trend in higher education, is seen by many as a threat to existing publicly funded distance universities. These institutions can, however, learn by observing the private sector's operating principles and practices and, in some cases, can benefit from a direct association. Murgatroyd and Woudstra (1990, 15) regret that many reject the application of business analogies to educational organisations: "There is much to be learned about the management and administration of complex service activities from business organisations engaged in related fields". Underlying innovative
institutional behaviour is an attitude and spirit of entrepreneurship. Although profit and cost-recovery programmes do not operate under exactly the same conditions, there are more similarities than differences (Sweet 1991); and, increasingly, the public sector is adopting the demand model in their institutional planning and implementation. Tait (1992) reports that the United Kingdom Open University requires increasing numbers of its programmes to operate on a self-financing basis. The costs of student support activities are recouped from fee income. Foks (1988, 36) believes distance education institutions are positioned to do this “provided their approach is well placed and adventurous”. Foks offers the following suggestions:

- Compete more strenuously for government funds, against each other and against private organisations.
- Consider various entrepreneurial ventures that might have seemed distasteful in the past.
- Seek funds from sources other than ministries of education and, for that matter, government.
- Enter into more cooperative ventures with each other, with other educational bodies, and with the private sector.

A view of the student as consumer and client has obvious implications for the general organisation of a responsive distance education system. It also extends to the curriculum development process and, most directly, to the concept of student-centred designs.

Curricular Perspectives

The general curriculum literature has been reviewed by Miller and Sellers (1985), who suggest that three major positions exist: transmission, transaction, and transformation. These positions represent what they term “meta-orientations” in that each comprises a cluster of more specific models (see, for example, Miller 1983; Baath 1979; and others). As well, each is associated with varying social, political, and economic positions. Although these broader matters are not discussed here in any detail, they inform the literature on curriculum development.

The Transmission Mode

The function of education in the transmission mode is to convey facts, skills, and values to students. These are transmitted in one direction, with an emphasis on control and prediction of the learning process. Consistent with principles derived from behavioural psychology, student skills are analysed into component parts and ordered in the form of a skills hierarchy. These sequences are then developed through specific instructional strategies which define not only the student’s response but also the direct-instruction role of the instructor or course designer. There is a strong disciplinary base to this approach: instructional designs adhere to the subject area as expressed in (usually) textbook format. In many ways, this approach involves the application of a mechanistic view of human behaviour to curriculum planning. The work of Gagne (Gagne and Briggs 1979) typifies the transmission position to the extent that an analysis of the learning task forms the basis of sequenced instructional plan through which individual students must progress.

The Transaction Mode

In education as transaction, the individual is seen as purposive and intentional and, in the role of learner, as being capable of rational problem solving. The central element of
transaction is that learning involves a dialogue between the learner and the curriculum, during which the learner reconstructs knowledge through dialogue. This process also includes interaction with other individuals engaged in learning. In fact, the second element of transaction — the development of instructional strategies that facilitate problem solving — is placed in a social context that involves not only situations but people. Further, application of problem solving is placed within the context of the democratic process: the so-called “democratic citizenship” orientation.

The origins of the curricular framework for the transactional position, while acknowledging the academic disciplines, are attributed to Piaget’s developmental psychology which emphasizes interaction between the learner and a stimulating intellectual environment; and to Dewey’s pragmatism or the application of rational (scientific) principles to a broad range of problems. There is as well a political aspect. Miller and Sellers (1985) consider the transactional approach to be associated with reform efforts that ensure minority groups have equal access to educational opportunities.

The Transformation Mode

The third of Miller and Sellers’s curricular orientations focuses more on personal and social change than do the others. Philosophically, the transformative view draws on the emerging environmental paradigm of interdependence. The transformation curriculum comprises various topics, but these possess a thematic structure that is not interpretable when disassembled into component parts. In instructional design the learner and the curriculum are seen as interrelated, at least when determining meaning and understanding. This holistic view reflects the influence of humanistic psychology and the associated assumption that individuals need to seek personal fulfillment and that they can do so through the learning process.

The social change strand of transformation argues that educators must adopt a more critical view of the role of schools in society. Political ideology is an integral part of transformation, where it is given a directly social reference and set of implications. For example, the work of Michael Apple, Paulo Freire, and others assume schools as institutions must be leaders in social and political change.

The progression from transmission to transformation reflects basic differences in the presumed purpose of education. Each position draws upon a variety of social, economic, and philosophical sources for its justification. The defining characteristic of each stance is, however, the particular role assigned the student in the instructional process. Essentially, the transmission-to-transformation continuum traces movement towards a student-centred view of learning. And to a considerable degree it describes parallel developments in the area of distance education. Here, various definitions of open learning have evolved, largely in curricular and instructional design. Debate over the meaning of “open learning” and its relationship to “distance education” has continued for some years, and has been most closely argued in the journal Open Learning with Lewis’s (1986) article followed by Rumble (1989), and the related discussion involving Jevons (1986) and Peters (1989). Emerging from these exchanges is a distinct shift towards a student-centred view of open learning.

This development in the meaning of “open learning” has been presented in some quarters not as a change but rather as a difference. Kember and Murphy (1990) distinguish open education from student-centred learning on the basis of institutional or administrative features and curricular features. For example, open learning includes: open entry; variable start and finish dates; freedom of study location; and the availability of a tutor. Student-centred learning possesses a flexible curriculum sequence; negotiated objectives and content, learning method, and assessment; and, finally, a choice of support. Open
learning, then, is designed to remove barriers to participation while student-centred learning concerns itself with supporting students in their academic efforts by increasing curricular and instructional flexibility.

A Curricular Comparison

Changes in institutional mandate and organisation are important indicators of change in distance education. However, the fundamental nature of these changes is most obvious in the curriculum area. For example, the notion of student-centred instruction lies at the heart of a distinction proposed by Boot and Hodgson (1987) between “dissemination” and “development” approaches to distance education. While essentially curricular in its concerns, the distinction between dissemination and development relates directly to differences between the established industrial model and the emerging distributed organisation described by Kaye and Rumble (1991). Additionally, the curriculum orientations described by Miller and Sellers (1985) parallel the movement from dissemination (transmission) to development (transaction-transformation). To the extent that these approaches coincide, they are useful in tracking and informing the increasingly numerous references to student-centred instructional designs in the distance education literature.

Dimensions along which this curricular change may be assessed have been developed by a number of authors in the general educational literature. For example, Berlat and Berlat (1981) propose various curricular dilemmas which, when grouped, comprise three aspects of the learning situation: student characteristics, knowledge acquisition, and the conditions of learning. Together, these determine the relationship between teacher and learner or, in the distance education setting, the relationship between institution and learner. Boot and Hodgson’s (1987) profile similarly describes the curricular and instructional features which contribute to an altered role for students in distance education. The major dimensions and relevant comparisons of their profile are outlined in Table 3.

Table 3. Boot and Hodgson’s Curricular Comparisons

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From Boot and Hodgson’s perspective, the questions and choices that surround knowledge issues involve information as commodity or, conversely, attributing personal meaning to the array of knowledge, skills, and procedures that the student encounters and engages with in the course of obtaining a university education. While the dissemination development dichotomy proposed may appear extreme, it is consistent with the recent literature on institutional change (see, for example, Tait 1988; Apple 1992) and serves to make the necessary curricular arguments within an altered perspective on the needs of students who themselves are responding to dramatically different social and economic imperatives.

STUDENT SUPPORT SERVICES:
ELEMENTS OF A RESPONSIVE MODEL

The major dimensions of Boot and Hodgson’s (1987) comparative summary are further elaborated here as a means of describing the elements of a responsive support service model; that is, a system whose features are consistent with the institutional shift towards a developmental orientation. These changes suggest a view of student outcomes as comprising something more than a repertoire of discrete skills. Complex patterns of knowledge acquisition and use are necessary acquisitions for students in order to define and solve the variety of problem types encountered in school and non-school settings. Furthermore, knowledge acquisition and application involve interpretation of what the individual and the situation needs. This constructivist approach to learning is discussed here along with recent research on student characteristics. As well, some of the implications of studies on learning styles and “approaches to learning” are examined. These comments on the characteristics of students and their active role in the construction of knowledge is preliminary to a discussion of the conditions of learning necessary to the development of understanding. Of particular interest to the consideration of student support models are activities that complement the instructional design process by promoting interaction among students. Interaction possibilities include mediated instructional situations such as audio or computer conferencing formats, and face-to-face settings such as study centres. The shared characteristic of both mediated and face-to-face instruction is the cooperative nature of the interactions that occur in each.

Knowledge Acquisition and Understanding

Most distance education programmes have been developed within the instructional systems design framework, which emphasises task analysis and individual student differences (Shale 1987). However, recent analyses of instructional models (see, for example, Jonassen 1992; Wilson and Cole 1991) indicate that curriculum development increasingly is moving away from its exclusive focus on either individual differences among students or the form and structure of the subject matter towards the actual process of interaction between both. Moreover, it emphasises the necessity of a social context for this interaction. A shift away from the objective and analytical treatment of learner and subject-matter marks the replacement of essentially behaviourist principles with those of cognitive science. More specifically, it introduces elements of the constructivist position into the curriculum design process (Prawat 1992). Constructivism makes a number of assertions that force reconsideration of the nature of knowledge acquisition and use and, in doing so, constructivism redefines the responsibilities of the institution and the learner in acquiring understanding.
Learning is a process of actively interpreting and constructing knowledge

Unlike the instructional systems design approach, which assumes the curriculum represents a collection of information and ideas all learners must adopt as an objective representation of the discipline they are studying, a constructivist view allows learners to interpret the information and construct their own mental representations of “reality”. It is further assumed that the mental representation constructed will reflect the individual’s personal history and present situation. Jonassen (1992, 9) has contrasted the use of symbols under objectivist and constructivist models. In the objectivist case, symbols are seen to represent reality and the individual’s internal representations are of that external reality. In the constructivist case, symbols are tools with which the individual constructs reality; and symbols, then, are representations of an internal reality. While the objectivist-constructivist distinction highlights differences in some of the assumptions underlying current and prospective design and tutoring practices, it also marks a debate within the constructivist camp (Moshman 1982, Bruner 1990). But these differences over the (internal or external) source of mental representations tend not to greatly influence practice (Olson 1992). Constructivism generally argues — as Apple (1992) did for textbooks — that learners interpret information in the context of personal experience, thus adding a uniquely individual character to their understanding.

There remain among constructivists design differences in the value of, for example, determining objectives or assigning that responsibility to the student. Jonassen (1992, 11) suggests that statements of objectives should function as a “negotiating tool for guiding learners during the learning process and for self-evaluation of learning outcomes”. Jonassen also admits that this is difficult in the case of training designs, which typically support performance goals. Nor is determining an appropriate role for the instructor in organising information a straightforward matter. The use of scaffolding activities in instruction (or tutoring) provides one such instance. Their value has been demonstrated in cases where students possess little related background information or lack procedural prerequisites. But an extreme position would argue that students must be free to generate their own structures. Pressley, Harris, and Marks (1992) suggest instead that a moderate constructivist view of learner autonomy (or, conversely, instructor control) is necessary for effective instructional design. Jonassen (1992) similarly supports a balanced view towards introducing constructivist assumptions into the instructional equation. He gives a useful example:

... the outcomes of air traffic controller training probably should not be individualistic or primarily constructed, yet designers must recognise that controllers’ perceptions of their roles and functions will differ somewhat.

Constructivist designs and instructional exchanges require that particular contexts be recognised. The extent to which these are included will depend, however, upon a number of factors, including the knowledge domain of the subject area and the nature of the problems encountered in that area (see, for example, Arlin 1986; Praut 1992). Certainly procedural and declarative knowledge bases are important to both air traffic controllers and sociology majors, but in different proportions. Moreover, the strategies developed to deal with problems in these fields will differ. One would expect problems encountered in the sociological field to be less clearly defined, requiring an “identification” process rather than a “solution” process (Nuy 1991; Candy and Crebert 1991).
Knowledge acquisition and application are not separable processes

The problem of transfer has always presented educators with difficulties. One of the assumptions guiding instructional practice has been that higher-order skills and abilities — those thought to mediate processes such as problem solving and critical thinking — are more likely to transfer to other parts of the curriculum or to out-of-school performance than lower-order factual or procedural acquisitions (Perkins and Salomon 1989; Prawat 1992). However, little evidence supports this position; and its assumption that knowledge is independent of the situations in which it is acquired or used is questionable (Larkin 1989). The alternative view of this “horizontal” transfer would see a greater connection between the knowledge to be learned and the arena or arenas of application. The term used by Brown, Collins, and Duguid (1989) to describe this relationship is “situated cognition”. Learning is assumed to occur most effectively in context, and that context becomes an important part of the knowledge base associated with learning. More specifically, the skill or concept to be learned acquires meaning from the situation in which it was used. The situation thus becomes an important part of what one knows or understands about the particular skill or concept. It is necessary, according to these authors, to embed learning in real-world activity.

Prawat’s (1992, 378) caution against an over-emphasis on the meta-cognitive skills and strategies of application adds an important qualification to the promotion of cognitive skill. In Prawat’s words:

If a concentration on the “syntactic” or “how to” aspects of thought leads us to ignore more substantive issues (i.e., what it is that we want students to think about), then the focus clearly is counterproductive. Ideas, being more substantive by nature, may be a more important resource for promoting thought than thinking skills per se . . . . Ideas play both an assimilative and accommodative role, allowing individuals to build on old information while continuing to search the environment for new information that leads to increased understanding.

A further development of this position is that ideas are created through a social process: the interpersonal communications and actions of a pair or group.

Individual knowledge constructions have a social referent

It is necessary to go beyond the interaction between learner and instructional material to determine how meaning is constructed. Apple’s (1992) account of the manipulation of texts indicates the importance of the social structure in personal knowledge acquisition. Rogoff (1990), Resnick (1987), and other “social cognition” researchers recognise the social embeddedness of the individual in arguing that a good deal of knowledge is determined by the community in which it was experienced. Interpersonal exchanges or some form of dialogue are necessary to establish a consensus of meaning about disciplinary knowledge (Prawat 1992). While acknowledging the individual character of learning, some socially negotiated meanings are essential to the implementation of constructivist principles. A completely individualistic view of thought is inoperable in a formal education system (see, for example, Jonassen 1992; Olson 1992; Bereiter 1990). Brookfield (1987) offers an example of the need for a social referent in his model of critical thinking. A five-stage sequence is proposed: a triggering event, an appraisal of the situation, an exploration to explain anomalies, the development of alternative perspectives, and an integration of perspectives into the fabric of living. As Garrison (1992) points out, the model begins and ends in the external world, in between which are the three phases of personal reflection. It is during the integration phase that individuals
act upon their perspectives by sharing and interacting with others. The validity of personal interpretations is determined in a social setting with other people (but see Pask 1976).

Garrison (1992, 139) refers to the learner’s responsibility to construct meaning and to justify that meaning through critical discourse with informed others. Entering into dialogue with “informed” others suggests an obvious role for the instructor but Garrison also introduces the idea of shared control. To the extent that the learner collaborates with others, a measure of control over the process is surrendered. In the validation process the learning community is assumed to be a supportive environment in which the individual can explore ideas, ask questions, and make mistakes (Prawat 1992). The necessary conditions of learning for a constructivist model to function will be dealt with later as a discussion of the conditions of learning necessary to gain understanding.

This brief discussion of the three dimensions of the constructivist approach to curriculum and instruction has set out some of the key ideas and basic references in the literature. Characteristics of the learner, assumed to be most relevant to a learner-centred, constructivist approach are discussed below.

Student Characteristics

Marton and Svensson (1979) characterise learning in three dimensions, all of which centre on the learner:

1. the learner’s awareness of the learning act;
2. the learner’s approach to the subject matter; and
3. the learner’s awareness of the context in which learning occurs.

The learner’s awareness of the learning act refers to the individual’s purpose for learning. This concern with purpose or goals is the subject of much recent research in the area of motivation as a means of explaining the sense of agency that is a part of the active learner’s profile. The relationship between the student and the material to be learned is considered as either a matter of style or strategy. As style, the approach to learning that a student adopts is influenced by the cognitive makeup and disposition of the individual; or, to the extent that the preference is possible — as in the case of choosing to learn in isolation or as a member of a group — style appears more socially determined. Recently, research has turned to explain the strategies students use given different learning tasks. Both the dimensions of awareness of the learning act and approach to the subject matter are discussed here. Research on the influence of context on learning is dealt with later in the discussion of conditions for learning.

Agency and Goal-Directed Behaviour

It is often stated that distance learners lack the support of the traditional campus and, as a consequence, require a greater sense of purpose in order to persist and achieve. Much research effort has been directed towards determining the motivational basis for successful learning at a distance. For the most part, motivation has been conceived as either intrinsic or extrinsic. In addition to this standard distinction, which is taken up below, a somewhat different interpretation of purpose appears frequently in the adult and distance education literature. These are found in enrolment or “participation” studies. Beaty and Morgan (1992) and Oilgren (1992) distinguish between the task-specific focus of most motivation analyses and the more general reasons individuals have for engaging in study.
The latter, general reasons for engaging in study, are referred to as "orientations to study" (Gibbs, Morgan, and Taylor 1982) and include academic, vocational, personal, and social reasons. Academic and vocational goals represent obviously distinct directions; and personal development reasons for enrolling typically are categories for those who do not seek accreditation. Social reasons for enrolment are expressions of a desire for companionship. But people enrol for a variety of reasons that reflect their personal situations and these may intersect (Parkinson, Swain, James, and Payne 1982). Social and personal goals can, for example, overlap or complement the traditional distinction between academic and vocational learning in ways that are important to the curricular changes we have been discussing. A personal motivation implies an intellectual curiosity that translates into important differences in study behaviours, whether directed towards academic or vocational ends. And an inclination for the company of other learners is prerequisite for group and cooperative learning. Research to date, however, maintains the existing division among statements of educational purpose.

Reasons for participating (other than social reasons) are further differentiated as to the locus of motivation: either intrinsic or extrinsic. Recent work in the area of motivation attempts to elaborate on the internal sources of motivated behaviour. Two such research theories are discussed below. The first deals with attribution analysis, a well-established theory. The second deals with the role of goals or task values in setting achievement-related patterns of behaviour. The section concludes with a discussion of more specific learning goals, drawing for the most part on the adult education literature.

Attribution theory (see, for example, Weiner 1985) has been a principal concept in social psychology for a number of years. It attempts to explain achievement-related behaviours in terms of expectancy and affect. The antecedents of these predictive constructs are specific attribution patterns that individuals use to explain the causes of academic success or failure. For example, students may state the cause of their academic successes or failures in terms of locus of causality, stability, and volitional control. The particular attribution pattern that students display influences their assessment of the likelihood of future success or failure and the affective reaction (pride or shame) to these outcomes. The resulting expectancy-value product predicts achievement-related behaviours such as attention, concentration, and persistence. To the extent that a student's behaviour results from such causal analyses, it is possible for instructors to shape their perceptions of the relationship between effort and outcome (Dweck 1992). An awareness of effort-outcome covariation in their study and learning places students in a position of much greater control and responsibility (see, for example, Nicholls 1979). This is a reasonable argument for volitional and rational study behaviour. However, Pervin (1992) questions the degree to which people exercise volitional control over their activities. Pervin suggests that, far from being a breakdown in control and a loss of autonomy among a few individuals, expressions of "irrational" behaviour are common and chronic although not usually debilitating. As an example, Pervin (1992, 164) recounts his experiences with students:

Hardly a student does not report being bothered with some such (volitional) problem, frequently citing such difficulties as endless procrastination. . . . Rather than being true of a limited few, I would venture to suggest that breakdowns in volition are a part of virtually all of us.

However, attribution analyses do offer an explanation of an individual's view of his or her academic or vocational performance. They also serve as a means of predicting future achievement-related behaviours, at least one based on the assumption of expectance-value theory. The practical utility of attribution analyses lies perhaps in the information
they provide about the individual's perceived basis for achievement, because this allows causal explanations to be redirected to the necessary relationship between effort and outcome.

Attribution studies represent one line of motivation research or, more accurately perhaps, one aspect of a general research effort that is designed to explore the impact of efficacy beliefs on achievement behaviour (see, for example, Bandura 1982; Locke and Latham 1990). An alternative approach to the study of motivation has emphasised the influence of higher-order goals (or goal categories) exert on a range of behaviours that contribute to achievement. This study of higher order goals by Nicholls (1979) and Dweck and Elliott (1983) has led to the proposition that people develop two achievement orientations that are related to how they perceive ability. These are developed in childhood and as a consequence of different school experiences. Some children judge ability in relation to previous performance and believe that additional effort actually can increase their ability. Others define ability as relatively stable and come to differentiate ability from effort. In fact, the relationship becomes an inverse one: the more effort expended, the less ability one possesses. The former view fosters a task-involved goal orientation while the latter promotes a performance (or ego-involved) orientation that demands the person demonstrate more ability than others. The performance orientation can have quite debilitating consequences for those children who do not do as well as their peers. One of the problems with the analysis of broad motivational categories concerns their stability or "fixed" nature. Performance and learning goal orientations appear to be formed early in the child's school life and reflect assumptions about the fixed or malleable nature of intelligence (Dweck and Leggett 1989). However, Dweck and Elliott (1983) describe learning and performance orientations as being determined in achievement situations that, respectively, emphasised mastery or competition. How amenable these orientations are to change, once established, is not well documented but presumably the problematic ego-involved goals would respond positively to more congenial instructional conditions.

Wigfield and Eccles (1992) suggest that goal and performance orientations influence the courses students choose. Performance goals will be more prominent for students who wish, for example, to become engineers and hence enrol in math as a prerequisite for engineering school. In some cases, they may opt for the easiest available course to enhance the likelihood of receiving good grades. There are, however, more positive curricular implications of goal orientations among students. Where individuals are task oriented, they will tend to enrol in courses from which they can derive the most intellectual benefit. Where possible, these students enrol in courses to fit their interests and they tend to strive more (see, for example, Atman 1990), have higher perceptions of competence for the task, and have more positive feelings of satisfaction towards the task.

Closely related to academic, vocational, and personal statements of reasons for enrolling, perhaps even embedded within them, is a more specific set of elements that define what Saljo (1979) initially termed "conceptions of learning". Essentially, these represent how students understand the learning task. Subsequent research and analyses have organised students conceptions into two categories:

Reproducing Goal

- Increasing one's knowledge
- Memorising and reproducing
- Applying facts and procedures

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Transforming Goal

- Understanding
- Seeing something in a different way
- Changing as a person

The notion of understanding not only as an outcome but as a process reinforces the constructivist view of personally meaningful knowledge as a goal; and the last transformative statement — “changing as a person” — introduces the developmental character of the scheme.

Understanding is a concept that has received considerable attention in the philosophy of education literature (Bereiter 1992; Okshevsky 1992). However, Nickerson (1985) and Entwistle and Entwistle (1992) reviewed the educational psychology and student learning literature and both concluded that understanding was not a well-researched notion despite its centrality to education. There have been some recent attempts to explicate the concept. Burns, Clift, and Duncan (1991) found students adopted either a “knowledge” or “coherence” orientation in their study of science. The latter orientation comprises the network of relationships individual students construct between chemistry concepts. These establish order within the subject and bring coherence to the isolated bits of information. The notions of coherence and structure or interconnections are repeated in the work of Entwistle and Entwistle (1991; 1992). Similarly, Greeno and Riley (1987) refer to the importance of developing generalised representations in problem solving, which they describe as implicit theoretical understanding.

One of the most striking features of this list of student perceptions is its developmental character, especially apparent in the reference to “changing as a person”. Beaty and Morgan (1992) conducted a six-year longitudinal study with a small number of open learning students to trace their intellectual and personal development. The observed changes in students involved a greater sense of responsibility for their own learning and growth in their awareness of the nature of knowledge and its construction. This involved, for example, their becoming more critical of the information and arguments presented in their course material. Other indicators of change included their understanding that analysis and argument did not require correct answers. In this respect, the distance education students in the study resembled the younger, traditional students in Perry’s (1970) developmental study and the female students in the Belenky et al. (1986) research.

Styles and Strategies

Individual differences among students have been widely used to predict outcomes such as persistence and achievement. Among the more obvious changes in the research literature is the move to include data about how students perceive themselves when constructing student profiles. While individual difference variables such as cognitive style remain an important means of characterising groups as well as predicting their study behaviour and performance (see, for example, Thompson 1983), increasingly the focus of research interest has turned to more complex patterns of study behaviour. Together with the individual’s awareness of the learning process — their sense of intellectual purpose or the set of specific goals they are pursuing — an awareness is needed of the appropriate means to employ in pursuit of these goals. These may more accurately be characterised as strategies rather than styles. As developed through the
approaches to learning framework (Entwistle 1991), they fulfill the important task of explaining the means by which students come to understand the ideas contained in their course materials.

**Cognitive Style**

Recent reviews of the literature reveal a growing dissatisfaction with the utility of individual difference variables in general, and cognitive style indicators in particular (Tobias 1987). Not only do they lack the predictive consistency required of research, but practitioners cannot readily employ style information in their instructional designs and decisions.

Earlier work on aptitude-treatment interactions failed to produce findings that could be reduced to general rules (Cronbach and Snow 1977). Nor has the more recent cognitive style research translated into instructionally useful applications (Curry 1990). Joughin (1992, 13) has examined field dependence-independence in relation to adult learning and finds some encouragement for continued research, but not as a matter of priority:

... after 40 years of research into cognitive styles in relation to children, the educational implications of cognitive style remain unclear. It is suggested that a similar fate awaits any extension of that research to adult learners.

Proponents of the individual differences approach have, however, elaborated the concept, and in a more broadly conceived form usually termed “learning style”, it continues to serve as a subject of research. (Dunn et al. 1989) consider learning styles to be biological and developmental characteristics that affect how students learn. However, Dunn et al. include a wide range of factors under the learning styles label: motivation, on-task persistence, and the kind and amount of structure required, to name only a few. This degree of inclusiveness departs from the established trait notion of cognitive style. Sociological preferences for individual or cooperative learning conditions as well as dependence on the instructor also form part of their definition of learning styles. Grasha (1984) has developed an instrument to assess style for (among others) collaborative, independent, and competitive preferences. These dimensions do correspond to instructional situations and designs that are fairly well established (see, for example, Johnson and Johnson 1975); however, the correspondence between instructional design and social preference or, more specifically, preference for particular learning conditions, has not been extensively examined in the distance education field (Sweet, Anderson, and Halenda 1991).

A somewhat different approach has been taken by Atman (1987), who relates style to motivation through a consideration of conation and Jungian type elements or, more precisely, aspects of the Myers-Briggs inventory. “Conation” is defined as goal-directed behaviour or “striving”. Atman combines the two elements to determine a “goal accomplishment style”. The purpose is to identify the ways students manage information, mobilise their energy, and use their time in order to develop interactive, individualised orientation programmes (Atman 1990, 149). Atman suggests that the availability of telecommunications technology represents an environment that will allow type indicators to be used to develop individualised programming. One might observe that the practical aim of individual difference research such as Atman suggests has been the construction of more efficient, more highly individualised instructional programmes; and to the extent these efforts have succeeded, students have been further isolated. As will be discussed in subsequent sections, the educational promise of technology is its ability to enhance interaction rather than to individualise students further.
The developmental experiences of women as learners were examined by Belenky et al. (1986) in their study of gender differences in knowledge construction. They describe as an “emancipatory journey” the progress of women through university from a state of silence to one of constructed knowledge. They posit a sequence of stages, defined by the relationship between the learner and the material to be learned, that moves towards greater intellectual maturity, necessarily involving knowledge of self as well as the ideas under study. But it is a progression so surrounded by political and social constraints that it is difficult to determine a uniquely female perspective, at least for some critics (Briskin and Coulter 1992; Code 1992). The process of connected learning illustrates this difficulty. As described by Belenky et al. (1986, 113), connected knowing is essentially social, involving others in the search for meaning: connected knowers “develop procedures for gaining access to other people’s knowledge. At the heart of these procedures is the capacity for empathy”. Connected knowing is contrasted with separate knowing, which characterises established forms of knowledge and ways of finding truth, broadly termed “critical thinking”. Critical analysis, debate, and generally adversarial methods are used. The distinction between separateness and connectedness has been advanced as a gender difference in the feminist literature by Gilligan (1982), Lang-Takac and Osterweil (1992), and others. As an approach favoured by women, connected learning may be seen as a learning style or, alternatively, as an intellectual state or stage of development (Holland 1988). Belenky et al. (1986, 102) appear to stress more the developmental aspects of knowing, elaborating a framework established by Perry (1970); and they do not assign gender differences to a preference for connected knowing:

Connected knowing is not confined to the poor, the uneducated, or the soft-headed. Nor is it an exclusively female voice. . . . Separate and connected knowing are not gender-specific. The two modes may be gender-related: It is possible that more women than men tip towards connected knowing and more men than women towards separate knowing . . . but we know of no hard data . . . bearing directly on this issue.

The argument for gender differences in preferences for separate-connected learning styles has been made subsequently in the distance education literature by Burge and Lenkayi (1990) and by Kirkup and von Prummer (1990). Kirkup and von Prummer offer some empirical data in support of their interpretation, as well as the additional thought that nurturing pedagogical practices and congenial learning environments developed specifically for women’s studies courses may be of value in defining favourable learning conditions for other courses and participants, including men (1990, 10).

Connected knowing as presented by Belenky et al. (1986) appears as a point along a continuum leading to a more obvious “voice”; and although its nature as a state, stage, or process is never clearly delineated, connectedness nevertheless is directed towards and fundamentally engaged in the task of constructing knowledge:

It is in the process of sorting out the pieces of the self and of searching for a unique and authentic voice that women come to the basic insights of constructivist thought. All knowledge is constructed, and the knower is an intimate part of the known. . . . [emphasis added]

The description of “constructed knowers” that Belenky et al. (1986, 137) have offered is consistent with a trend in the literature on learning styles towards a view of learning as the development of understanding—an outcome that, as previously discussed, is less easily defined and less predictable than performance on standardised tests, but no less in need of explanation.
Approaches to Learning

Explaining the pursuit of understanding is one of the aims underlying a body of research usually termed “approaches to learning” (Entwhistle 1991). As initially developed, the approaches to learning concept attempts to distinguish between deep learning and surface approaches to reading text. Students who employ a deep learning approach seek the author’s meaning and critically evaluate the arguments contained in the text. Moreover, the material is interpreted against personal knowledge and experience. Surface learning strategies attempt to reproduce and, in some cases, simply memorise information. And usually the information is selected to satisfy assessment requirements. Although the types of questions asked on the follow-up examinations influence the strategy students adopt, most students who have initially adopted a deep learning approach display a more flexible approach than those who prefer a surface strategy (Marton and Saljo 1976).

Further research and instrument development has elaborated the original concept (see, for example, Biggs 1979; Entwhistle and Ramsden 1983). The “approaches to studying” inventory, for example, comprises three scales which assess deep, surface, and what is termed a “strategic” approach. The strategic approach consists of the intent to maximise performance and grades through the efficient allocation of study time and effort. Ramsden and Entwhistle (1981, 371) describe it as an “awareness of implications of academic demands made by staff”. So it is a form of “school-wiseness”, an understanding of how the education system works and how the individual can best respond. The strategic approach may invoke either deep or surface learning strategies depending on what the situation demands. Even a fourth orientation has been identified — “study pathologies” (Entwhistle 1991). Despite all these developments in the original approach to learning concept, it is still deep and surface learning strategies that are at the core of strategy scales. The deep and surface learning strategies and their elements are displayed below (Entwhistle and Entwhistle 1992):

Deep Approach

- Intention to understand for oneself
- Interacting vigorously and critically with the content
- Relating ideas to previous knowledge
- Integrating components through organising principles
- Relating evidence to conclusions
- Examining the logic of the argument

Surface Approach

- Intending to reproduce parts of the content
- Accepting ideas and information passively
- Concentrating only on assessment requirements
- Not reflecting on purpose or strategies
- Memorising facts and procedures
- Failing to distinguish principles or patterns

Other variables are assessed by the Ramsden and Entwhistle (1981) instrument and its adaptations. Associated with the deep learning strategy are behaviours such as an active questioning of the material or instructor and an organised approach to relating information and the logical use of evidence. As well, an intrinsic motivation is found in students practising deep learning. With surface learning, quite different behaviour tends to be practised. Motivation is extrinsic, study routines are disorganised, evidence is not logically related to conclusions, and there is an “overcautious reliance on details”. Too great a concern with detail has been termed “improvidence” and reflects what Pask
(1976) termed a "serialist strategy"—an attempt to master procedural detail using a step-by-step approach. The excessive use of the serialist strategy means that improvident students are unable to see the way in which different elements of knowledge relate to one another to form an integrated whole, an essential feature of understanding (Kember and Harper 1987). Numerous studies have examined the effect on achievement of applying a deep or surface learning strategy. Generally, deep strategies are associated with the development of meaning and the attainment of understanding.

Kember and Harper (1987) also studied the relationship between strategy and persistence among distance learners. The results of this study indicate that persistence is linked to the use of a deep learning approach (see also Kember et al. 1991).

Other research has assessed the influence of learning conditions on how learning strategies are used. Meyer (1991), for example, has adopted the term "study orchestration" to describe the interaction between perceived learning conditions and strategy use. Students adjust their strategy selection to fit their perceptions of the learning environment. This process, which Meyer and others have studied (see, for example, Entwistle and Tait 1990), allows the adjustment of learning conditions to influence students in their choice of strategy. Nuy (1991) examined whether students appreciate their learning structures and how they approach study strategies in a problem-based curriculum. In this case, the learning environment structures were more refined than most studies. They were defined as content, organisation, and social structures referring, respectively, to the degree of control students exercised over the subject matter, how they managed their study time, how they determined the purpose and sequence of study and, finally, the extent and nature of communication among students. Meyer, Dunne, and Sass (1992) propose the tutoring of students in meta-orchestraions, the awareness of different concepts of learning (Saljo 1979), and the choice of appropriate and inappropriate strategies (for example, improvidence). Instructing students in the ability to perceive anomalies between learning goals and contexts and then adjust accordingly represents an attempt to give students a control mechanism. Such control would monitor and regulate their problem-solving activities (Wilson and Cole 1991).

Conditions of Learning

Developments in distance education often employ the notion of differences among the generations to chart changes in the field. Usually first, second, and third generations are established. All are related to advances in either or both educational technology and instructional design. Nipper (1989) and Bates (1991) stress the impact of communications technology, and Lauzon and Moore (1989) couple communications with computer-aided learning to propose a fourth generation model. Garrison (1985) and Kaufman (1989) outline the essential features of third-generation instructional designs. One of the characteristics of this progression is an acceptance of essentially constructivist views of design (Sweet 1991). As discussed earlier, different "degrees" of constructivism (Moshmon 1982) range from an extreme view that advocates discovery learning principles, to a more explicit form of presentation with extensive modeling and explanation. In between these positions is the dialectical view that emphasizes teacher participation. Teachers are involved through such activities as scaffolding (Rogoff 1990) and a good deal of communication between instructor and students who are having difficulty, although this takes the form of hinting and prompting rather than modelling or explaining (Pressley, Harris, and Marks 1992). Accounts of actual programmes and their operation suggest that stronger support exists for dialectical constructivism than the more

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extreme forms (see, for example, Resnick 1987; Poplin 1988). Two aspects of this
approach are discussed below: the relevance of the curriculum to the “real” world; and
the centrality of interaction among students and instructor.

Relevance in Learning

SITUATED LEARNING

The importance of relevance to university learning has been emphasised by many critics
of the system. Constructivist notions that bear on the relevance requirement include
learning in context, an altered interpretation of errors in learning, and an engagement of
the student’s emotions as necessary to learning.

Candy and Crebert (1991) argue that transition to the workplace would be eased if the
university learning environment included more process-oriented programming, rather
than the content-based systems now in use. Process-oriented programmes involve more
problem solving or project learning. As well as including students in cooperative group
solutions to problems, the form of the problems should reflect the unpredictable and
disorderly nature of the ill-defined, “messy” problems found in the workplace. The
instructional problem of transfer is not easily dealt with, especially in distance education
settings where such equipment as home-study science kits are not easily constructed.
However, as Resnick (1987, 18) points out:

As long as school focuses mainly on individual forms of competence,
on tool-free performance, and on decontextualised skills, educating
people to be good learners in school settings alone may not be
sufficient to help them become strong out-of-school learners.

“Situated learning”, as defined by Collins (1991) and employed by Wilson and Cole
(1991, 51) in their review of cognitive models of learning, assumes that “knowledge and
skills [should] be taught in contexts that reflect the way the knowledge will be useful in
real life”. The extent to which the external world can be reproduced in the learning
setting poses obvious problems. However, after assessing the characteristics of a number
of instructional models currently in use, Wilson and Cole (1991) found a variety of
tricks to create “authentic contexts” for acquiring knowledge and learning problem-
solving strategies. These contexts offer at least a partial answer to questions of
relevance. As Berryman (1993) points out, however, much research remains to fully
develop the cognitive apprenticeship approach to instructional design.

ERRORS

In the constructivist view, errors are not to be penalised. Poplin (1988) considers them to
be necessary for learning. Instructors gain insight into gaps in knowledge and the
inappropriate use of strategy by students. And students can monitor their errors as
measures of progress in learning. More specifically, students can reflect on their
progress, explaining to themselves why they are doing better after instruction (Pressley,
Harris, and Marks 1992). How students perceive their errors is critical. If they interpret
mistakes as indicating inadequacy, that can only inhibit progress. Developing a
congenial and encouraging atmosphere is the responsibility of the instructor; and given
the link between failure rates and perceptions of programme quality or standards in many
systems, this requires a considerable adjustment on the part of some instructors.
EMOTIONAL ENGAGEMENT

Feelings contribute significantly to what is learned and how well the material is acquired. The satisfaction accompanying success has been mentioned in the previous discussion of attribution theory. But emotions may be engaged by the actual ideas or procedures students are involved with in their learning. Entwhistle and Entwhistle (1992) point out the association between feelings and the acquisition of knowledge: "understanding itself can be seen not as a cognitive process but as an experience. It involves a feeling of satisfaction as sets of information and ideas are brought together into a coherent whole". Belenky et al. (1986) in their volume on women and learning similarly describe the constructivist knower as becoming a passionate knower — one who enters into a union with what is to be known. This engagement becomes the predominant mode for understanding when women find points of connection between their own lives and what they are trying to understand. A final reference to the necessity of establishing a link between the emotions and meaningful learning activities is found in studies of text interpretation. It is based on "reader-response theory", which assumes the importance of both an aesthetic and an effecient reaction to text (Rosenblatt 1938; 1978).

Social Interaction

Discussions of constructivist influences on instructional design applications and on instructional exchanges between instructor and student emphasise the active role of the instructor in learning. As Garrison (1988, 125) points out, the preoccupation with learner independence in distance education has distorted the nature of the educational transaction:

> With recent developments in communications technology and the ability to communicate at a distance such a view of the independent learner is anachronistic. If we do not begin to view education as a balanced transaction and begin to work towards this goal then we risk perpetuating the existing burden of many distance learners who study without adequate guidance from and dialogue with teachers and fellow students. The quality of an educational transaction is dependent upon collaboration and meaningful dialogue and negotiation.

Of course, other opportunities arise for interaction in distance education — informal gatherings, scheduled seminars in established study centres or community libraries, and so on. Garrison's (1988) argument for interaction recognises the social nature of learning, whatever the format. Two settings in which interactive learning can occur are discussed below. Both of these, the study centre and the mediated classroom, have the potential to bring people together for group learning. In the first example, face-to-face exchanges can be set up in local study centres and, in the second, audio-conferencing and computer-mediated communications technology can bring students together for conferences independent of space and, in the case of computer-mediated conferences, independent of time. If the study centre or the audio and computer-mediated conference systems are to avoid merely duplicating traditional methods of face-to-face group instruction — recreating the campus in miniature — an alternative instructional dynamic is necessary. Increasingly, there is support for the notion of interdependence in distance education design and delivery practices (Burge 1988). This represents an alternative to the dependence-independence debate and recognises the necessity for interaction and negotiation in studying most university-level subjects. Dekkers, Kelly, and Sharma (1988, 9.4), in describing the Australian situation, state:

> ... the majority of tertiary courses require higher levels of cognition and many require ongoing interaction with academic staff, in the role
of tutor or mentor. Such interaction is necessary in order to develop in
students problem solving and communication skills for both specific
and general applications.

Where responsibilities for advising and tutoring are merged in response to a changed
view of the student’s intellectual purpose, instructional roles alter accordingly (King and
Forster 1985). Some form of social interaction beyond individual mentoring then
becomes a necessary feature of the instructor’s role if, as has been argued, the student’s
task of understanding either substantive or procedural knowledge involves the social
construction of knowledge. Kaye’s (1992, 3) summary of the assumptions underlying
collaborative learning in distance education essentially restates the constructivist position
discussed earlier. These assumptions suggest that instructors participating in the group
exchanges among students may be most effectively exercised through cooperative
learning.

There is a large and growing literature on cooperative learning. A comparative review of
the British and American literature is provided by Topping (1992). More elaborate
analyses of the American research on cooperative learning is available (see, for example,
Johnson and Johnson 1989; Slavin 1990).

These reviews indicate that cooperative learning is being adopted in many educational
jurisdictions, often in response to the success of collaborative arrangements in the
workplace. While its effect in schools is generally viewed as positive, some research
(see, for example, Webb 1982) on implementation and cognitive outcomes is qualified:
person and situation variables differ in their contribution to the success of collaborative
undertakings; and some of the research fails to take into account the well-entrenched
expectations of many instructors and adult learners. Nevertheless, the implementation of
collaborative learning principles in a range of educational, business, and service
organisations demonstrates more than a belief in their benefits. Successful implementa-
tion in these settings lends empirical support to arguments for cooperative learning in
distance education settings. Those aspects of cooperative learning that are especially
relevant to the face-to-face and mediated settings are discussed below together with a
selected overview of the literature associated with each instructional setting.

FACE-TO-FACE INSTRUCTION

A number of articles in the literature describe the structure and operation of study centres
(see, for example, Harry 1985, for a review). For the most part, these articles deal with
the United Kingdom Open University (Brindley and Fage 1992) or the Australian system
(Dekkers, Kelly, and Sharma 1988). Organisational changes are also reported for the
Fernuniversitat as they extend their centres throughout the eastern regions of Germany
and into Austria and central Europe (Groten 1992). Among the various analyses of study
centres in distance education, the Australian Gough Report (1980) has occasioned
considerable rethinking of basic philosophy and operation. One of the questions of the
day asked whether study centres, because they offer face-to-face instruction, do not bring
the entire distance education concept into question. Sewart’s (1981) response was that
study centres were designed to weaken students from the traditional method of face-to-face
group teaching. The study centre was seen as a transitional phase in the educational
development of the off-campus student as an independent learner. As previously
indicated, the goal of interdependence has since become more prominent in support
service literature. However, responses to the problem of determining an appropriate role
for study centres demonstrate the wide range of opinion that currently exists (Brindley
may be gained from the extensive literature on cooperative learning in the classroom as
well as the literature that describes collaboration in the workplace.
Cooperative learning in face-to-face settings occurs within a particular goal structure. Johnson and Johnson (1991) have distinguished cooperative, competitive, and individualistic goal structures. Each differs in a number of ways, including the relationships among students and instructor, the organisation of resources, and so on. Some of the more obvious features of cooperative learning are to be found in the reviews already indicated. These list some of the requirements for successful implementation of cooperative learning in schools:

- **Positive Interdependence:** The perception that students need one another to succeed.
- **Encouragement:** Students promote each others' learning by helping, sharing, and encouraging efforts to learn.
- **Individual Accountability:** Each student's performance is frequently assessed and the results "awarded" to the individual and the group.
- **Interpersonal Skills:** Small group functioning requires the collaborative skills of leadership, decision-making, trust building, communication, and conflict management.
- **Group Processing:** The group discusses how well they are achieving their goals and maintaining effective working relationships among members.

The concept most central to cooperative learning and its successful implementation is positive interdependence. Johnson and Johnson (1991) describe this notion as comprising mutual goals, joint rewards, shared material and information, and assigned roles. A similar summary, applicable to a variety of organisations, has been assembled by Schrage (1990) and is summarised by Kaye (1992, 5) who notes its relevance to collaborative distance learning activities:

The factors identified by Schrage which determine the likely success of any form of collaboration are undoubtedly relevant to collaborative learning activities. They include: competence among group members, a shared and understood goal, mutual respect and trust, the creation and manipulation of shared spaces, multiple forms of representation, continuous — but not continual — communication, formal and informal environments, clear lines of responsibility, but no restrictive boundaries, the acceptance that decisions do not have to be based on consensus, and that physical presence is not necessary, the selective use of outsiders, and the realisation that the collaboration ends when its goal has been achieved.

Schrage’s collaborative statement is directed to the effective operation of any organisation and reflects perhaps the perspective of adults more than most of the school-based literature on cooperative learning. As well, it introduces the idea of mediated instruction in accepting that individuals need not be in one another's presence to communicate effectively.
MEDIATED INSTRUCTION

With the advent of multimedia systems, describing the domain of interactive delivery technology in distance education becomes a complex task (see, for example, Hannafin 1989). However, a sketch of communication formats currently in use will serve to demonstrate the potential of telecommunications to create a richer learning environment. Currently two reasonably well-tested means of providing mediated interactive instruction are used: audio-conferencing and computer-mediated communication (CMC). These forms of mediated communication and learning share many features, but the educational implications of their differences are considerable, especially for cooperative learning and the role of tuition and support (Carrier and Schofield 1991).

AUDIO-CONFERENCING Recent reviews of the literature on audio-conferencing in education deal with two communication formats. The first is audio-teleconferencing in which students engage in real-time communication through a bridge system. Although widely used, at least in Canada (Stahmer and Helm 1987; Helm 1989), there is a limited quantity of research on this medium. Rothe (1985) developed a conceptual scheme for integrating the various interactions among actors in a distance education network. Burge and Howard (1990) and Garrison (1990) conducted evaluations of courses delivered by an audio-conferencing system. More recently, technology has advanced to the point where a graphics dimension can be reliably added to the audio transmission. As Anderson (1992) points out, available evaluations of the educational efficacy of devices such as the TeleWriter are neither numerous nor detailed. Yet they exist and the findings are generally positive (see, for example, Gilcher and Johnstone 1989; Maher 1986). In his analysis of the use of audiographics in a complex environment (a variety of instructors, courses, and a large number of students), Anderson (1992, 18) found that the addition of a graphics component was well received by students and instructors; and, in summarising their reaction, Anderson considered that the technology definitely enhanced the potential for interactive learning.

COMPUTER-MEDIATED COMMUNICATION Both audio and computer-mediated conferencing systems allow many-to-many exchanges and both overcome problems of distance. Computer-mediated communication, however, is unique in that it is asynchronous and therefore can accommodate different time schedules among participants. It is also a text-based system with the constraints and opportunities this implies for information access, exchanges, and learner involvement. After comparing different educational vehicles, Harasim (1990) considered the computer conferencing aspect of computer-mediated communication to be a qualitatively different learning environment, one which required different assumptions if effective instruction were to be conducted online.

The structure of a computer-mediated communication system may be described in considerable detail (see, for example, Hiltz 1986). However, three basic online services are available: online databases and information banks, electronic mail (E-mail), and computer conferencing. Databases offer an economic means of access for widely dispersed students. In fact, international access has become feasible, and the range and accessibility of information banks grows daily. Electronic mail allows asynchronous, text-based communication between correspondents. Messages are routed to the addressee's mailbox on the host computer and reside there until read. Such messages may be responded to, rerouted, or copied. Most E-mail systems operate a bulletin board with read-only access to a variety of messages or documents. Although somewhat limited in flexibility, E-mail is a rapidly expanding system both in education and business. The third service, computer conferencing, is very similar to E-mail but is more complex. Computer conferencing employs the filing and organising power of the host computer to establish a range of facilities that enhance group communication and
information retrieval: directories of users and conferences, conference management tools, search facilities, polling options, cooperative writing, and other means of customising the system to suit special group needs.

Computer-mediated communication systems offer a range of specifically educational functions. These include: the "virtual seminar", the online classroom, online games and simulations, and computer-supported writing and language learning forums. They can also be used as adjuncts to existing campus-based or distance education courses. And, finally, they can be networked as information resources offering access to library services and online databases.

A number of reviews of the literature on computer-mediated communication have recently been published. Burge (1992) and Wells (1992) have both produced comprehensive bibliographies of computer-mediated communication in education. More in-depth analyses and accounts of research and development programmes may be found in Harasim (1990), Mason and Kaye (1989), and Kaye (1992). Among these analyses, computer conferencing is identified as the focus of greatest educational interest. Many of the conferencing issues identified in the reviews relate directly to cooperative learning.

Assessments of the educational potential of computer-mediated communication have emphasised different aspects of the system. Most attend to the technological features, especially the difficulties in adoption and use (see, for example, Hiltz 1986). Others are concerned with developing tools that improve our understanding of cognitive development in the virtual classroom (Henri 1992). But many consider the social design of computer-mediated communication to be the central issue. Riel and Levin (1990, 168) state: "the nature of the social design of computer-mediated communication will become the dominant issue: what should be the nature of the interactions, how should leadership be provided, and how should activity be organised in this new communication medium?". Kaye (1992) similarly argues that conferencing is primarily a social event and as such draws on the interpersonal skills of its participants to build successful exchanges. This applies especially to the conference moderator, an argument made in many articles on the collaborative and educational uses of computer-mediated communication. Feenberg (1989) lists three necessary areas of moderator expertise: contextualising functions, which include opening a discussion and setting norms and agendas; monitoring functions, which involve the recognition of participants' contributions and the appropriate timing for prompts; and, finally, the "meta" functions, which provide summary commentary and outlines of the various pathways followed in the debate and discussion. These skills are very similar to those required by the seminar leader in any instructional setting, and Kaye (1992, 16) makes the point that those who display such competencies in the traditional seminar are likely to transfer them successfully to the somewhat different electronic environment. In summarising his analysis of the recent literature, Kaye (1992, 22) suggests:

...just as in the face-to-face classroom or organisational context, the successful inclusion of collaborative learning activities within the CMC environment depends also on the value attached to interpersonal collaboration, on the way such collaboration is planned and organised, and on the extent to which it meets the needs, interests, and goals of the participants.
SUMMARY

This literature review has attempted to indicate the general direction of change in distance education institutions and the implications for student support systems. A consideration of institutional policies in terms of dissemination and development approaches has suggested a fundamental alteration to the traditional separation of tutoring and advising — where advising involved individual counselling of students with problems. Using the perspective of a developmental approach to distance education that Boot and Hodgson (1987) suggest, some specific concepts relevant to student support services have been discussed. That analysis has suggested the following major points, which provide a perspective on the case studies to follow and on the conclusions and recommendations of the participants in the Delhi Symposium, who presented and discussed those cases:

- Distance education institutions are moving away from the traditional industrial model of design, development, and delivery of learning packages towards a model more concerned with the way students both interact with the subject and come to understand the ideas studied.

- This approach is based on an altered concept of the learner, who is seen to engage the ideas in a field of study and make sense of this knowledge in a personally meaningful way.

- Instructional design increasingly includes interaction as a defining characteristic of distance learning and not as a supplemental attribute of the system.

- The roles of advisor and tutor need to merge. The primary responsibility of the resulting "academic counsellor" is to pursue a learner-centred approach to instruction.

- Cooperative goal structures can facilitate the development of effective learning strategies. Collaboration is possible in both mediated and face-to-face settings but its successful conduct requires that significant changes be made to current instructional design and implementation practices. The roles and responsibilities of both student and academic counsellor must reflect these changes.
PART 2

CASE STUDIES

While providing an overview of the literature and an analysis of policy, the Commonwealth of Learning Roundtable report (1991) left the task of exploring the future shape of student support systems in distance education to another forum. A group was assembled for this purpose in Delhi in the summer of 1992. It comprised student support administrators from various distance education universities in the South Asian region. Each presented an account of his or her institution’s support service and this information was then included in a general discussion of the problems, institutional responses, and future direction of support services in the region.

At the Delhi Symposium, participants were interested in assessing the support service data contained in each case. Although the case studies vary in their organisation, for the most part they do adopt a pattern. Each case study includes an institutional sketch, a description of the existing support service, the problems the service faces, and some of the measures used to cope with the problems. A final section presents a view to the future, which outlines the policies and actions that that support service contemplates. These future prospects occur in the context of each participating university’s strategic plan, which is not elaborated in the case studies; however, some of the universities have been described in other papers or reports and these may be consulted for more complete accounts of their institutional structures and policies (see, for example, Shah 1988; Wilson 1990; Singh 1992).

The Delhi Symposium participants had two purposes. The first was to elaborate the problems facing support service development given the changing face of distance education. The second was to recommend ways in which the problems might be further refined and appropriate solutions sought. In their analyses of the case studies, participants referred to relevant regional policies as well as to the general literature on student support services. Nevertheless discussions at the Delhi Symposium were definitely grounded in the reality of everyday practice. On this basis, the assumption was made that maximum impact on important issues of access, academic quality, and efficiency would follow from analyses of issues directly related to the process of instruction. The case studies illustrate the centrality of the problem of instructional process yet at the same time deal with other matters of concern in the development and effective operation of student support services. The case studies follow, together with an overview of the analysis that Delhi Symposium participants applied to the cases. That overview provides a summary of their deliberations and recommendations for further action.

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UNIVERSITY PROFILE

Objectives

Indira Gandhi National Open University (IGNOU) was established in 1985 to democratise higher education by taking it to the doorsteps of people in even the most remote parts of India. Its mandate is:

- to diversify and strengthen higher education courses so that they are relevant to the national economy and employment opportunities, based on India’s natural and human resources;
- to provide access to higher education to large segments of population, particularly people living in remote, rural areas, as well as working people, housewives, and other adults who wish to upgrade or acquire knowledge and skills;
- to promote the acquisition of knowledge in a rapidly developing and changing society and to continually offer opportunities for upgrading knowledge and skills in the context of research and development in all fields of human endeavour;
- to provide an innovative system of education at the university level that is flexible and open in its methods and pace of learning, combination of courses, eligibility for enrolment, and age of entry, with a view to promoting learning and encouraging excellence in new fields of knowledge;
- to contribute to the improvement of India’s education system by providing an alternative to the formal system of education;
- to provide training in various arts, crafts, and skills, improve their quality, and increase their availability to the people at large;
- to provide adequate training for the teachers that such activities or institutions employ;
- to provide suitable postgraduate courses and to promote research;
- to provide counselling and guidance to the student community; and
- to promote national integration and the comprehensive development of the human personality through its policies and programmes. With a view to encouraging and strengthening distance education in India, IGNOU is charged with the responsibility of coordinating and maintaining educational standards in distance education.

Organisation of the University

Government of the university is as follows. The president of India is the official visitor of the university. The board of management, academic council, planning board, and finance committee are important university authorities. The vice-chancellor, pro vice-chancellors, directors, registrars, and finance officer are the main officers of the university.
The university carries out its tasks through fifteen divisions and eight schools of study. IGNOU has so far launched five degree programmes, eleven diploma programmes, and three certificate programmes. While all programmes are available in the English, six programmes are also available in the Hindi language. One programme has been made available in ten other Indian regional languages. A further ten programmes are at various stages of preparation. Starting with a modest enrolment of over 4,300 in 1987, IGNOU had over 159,999 students on its roll in 1992. During the 1991–92 academic year, 14.4% of new enrolments were women, 68.1% were 30 years of age or less, and 22% lived in rural areas.

STUDENT SUPPORT SERVICES

Objectives

Student support services at IGNOU strive for the following objectives:

- to help students gainfully handle the learning package provided by IGNOU and thereby increase student success; and
- to reduce the isolation of learners by providing academic, administrative, and information support through regular contact.

Organisational Structure

With a view to effectively meeting learner needs, IGNOU has adopted a decentralised three-tier structure to operate its student support services. The overall responsibility for student support services rests with the regional services division at IGNOU headquarters. They operate 16 regional centres and 201 study centres. In addition, some programme-specific or area-specific subcentres have been opened under the regular study centres in different parts of the country.

Policy planning, course production, material distribution, and data maintenance are the main functions at IGNOU headquarters. They provide necessary administrative and academic support to regional centres and study centres.

The regional centres are responsible for the expansion, supervision, and coordination of student support services within the given region and for training part-time staff at the study centres. The regional centres carry out all admissions work. They are staffed by full-time academics and administrators, and equipped with reprographic facilities, telephones, telex, and fax. Although currently sixteen regional centres are established, the prospective plan is to have at least one regional centre per state.

Study centres are located in rent-free accommodation provided by institutions of higher learning and are staffed part time. Major services provided at the study centres include information and guidance, counselling and tutoring, audiovisual presentations, library services, assignment handling and evaluation, and the conduct of term examinations. All study centres are equipped with standard furniture, audiovisual equipment, a library with course material, reference books, and videotape cassettes. To improve communication, telex machines were installed in 1990–91 at 50 study centres that are either located in remote areas or have a large enrolment. The university proposes to equip all study centres with telex and photocopy machines, in a phased manner.
Of IGNOU's 201 study centres, 9 are recognised study centres, for which sponsoring institutions or organisations bear the expense, with IGNOU exercising total academic control. With a view to further expanding the network of support services, IGNOU has evolved the concept of subcentres, which are to be established within the area covered by a study centre. In some regions, subcentres are responsible for counselling, assignment handling, and term examinations.

It has been decided to decentralise to regional centres, in phases, all functions except policy planning and the development of learning materials. Admissions and the training of part-time study centre staff have already been decentralised to regional centres. The evaluation of assignments has been fully decentralised to study centres.

Facilities and Functions

A student affairs cell has been set up in the regional services division at IGNOU headquarters. To further strengthen student affairs, a student support core group has been formed with one representative from each school.

Personnel

The personnel engaged in the student support system work full time at headquarters and the regional centres and part time at the study centres. The regional services division is headed by a director and assisted by joint directors, deputy directors, and assistant directors. Regional centres are headed by regional directors, who are assisted by academic and administrative staff. Study centres are headed by part-time coordinators, who are supported by part-time assistant coordinators and academic counsellors.

In view of the relative newness of the open university system, IGNOU has ongoing staff development programmes for all study centre personnel. These programmes are held at headquarters, regional centres, and even at study centres. They are organised for regional centre staff, coordinators, assistant coordinators, academic counsellors, and secretarial staff of the study centres in three stages:

1. initial briefing;
2. intensive orientation training; and
3. continuing training.

The staff of the student support system play an important role in not only programme delivery but also in providing useful feedback to headquarters about ongoing programmes.

Library Services

With a view to providing students and academic counsellors access to standard reference books, small libraries have been set up at all study centres and regional centres. The books for these libraries are mainly ordered by the central library at headquarters on the basis of recommendations of each school. This ensures that the same books are available at all regional centres and study centres in the country. In addition, regional directors and coordinators can buy books locally. National and international journals on distance education are also subscribed by the central library for all regional centre libraries. The
intention is to develop regional centre libraries as resource centres for distance education in each region. However, books in these libraries are for reference only. A lending facility does not exist, except in the central library at headquarters.

Interaction

Avenues for interaction have been created in the student support services network at different levels to provide effective support to learners. At headquarters there are three facilities:

- In the regional services division, the student affairs cell deals with all problems and queries received from students in different parts of the country.
- A newsletter is regularly published and sent to all students to provide information on vital matters.
- The Open Channel in the IGNOU telecast has been introduced on the national television network, Doordarshan.

At the regional centres similar efforts are made to improve interaction:

- Regional enquiry services have been mooted to systematically deal with student queries.
- Student records are maintained at regional centres.
- Intensive contact programmes are organised by regional centres at places where regular counselling facilities may not be available or where an existing study centre is not activated for a particular programme because academic counsellors are not available.

As one would expect from its closer contact with students, the activities of the study centres are more varied:

- Programme induction meetings are held at all study centres as programmes begin.
- Counselling sessions are regularly organised at study centres for all programmes. During these, students can interact with counsellors, who provide them with discipline-specific as well as general guidance. Counselling sessions mainly concentrate on the tutoring aspect, however.
- The study centre coordinator and assistant coordinators are available to students for advice and general guidance.
- Peer groups are also encouraged and provided with necessary administrative support. Some peer groups have been established at several study centres across the country.
- Tutors comment on the assignments submitted.

In addition, periodic meetings and conferences among regional directors are organised at headquarters or the regional centres to facilitate interaction among the various levels of the student support services organisation and so to improve the system.
Technological Applications

IGNOU has adopted a multimedia system to deliver courses. Effort has been made to gainfully use the technology available, as follows:

- The computer is used to maintain records, evaluate assignments, despatch material, and so on.
- Audiovisual equipment and videotape cassettes are provided to all study centres and regional centres.
- IGNOU programmes are telecast on the national television network, Doordarshan, three days a week. In 1992–93, some 325 video programmes were produced.
- IGNOU radio programmes are broadcast from two All-India Radio stations. In 1991–92, 425 audio programmes were produced.
- Telex and fax are available at all the regional centres, and telex has been installed at some study centres for better communication.
- Photocopiers are available at all regional centres and also at some study centres to provide copies of assignments.

STUDENT CHARACTERISTICS

IGNOU students may possess one or more of the following characteristics:

- They are highly motivated and mature.
- They are thoroughly committed.
- They have been conditioned by the traditional ways of learning and so depend on study counsellors too much.
- They lack the study skills required to handle the instructional materials and learning package.
- They are largely invisible.
- They feel isolated.
- They lack confidence.
- They have previous educational experience.
- They come from a wide variety of both educational and occupational backgrounds.
ISSUES AND PROBLEMS ASSOCIATED WITH THE EFFECTIVE OPERATION OF THE SUPPORT SYSTEM

Although the open university system is relatively new in India, correspondence courses have been offered at dual-mode institutions for quite some time. Still, social, economic, geographical, and linguistic constraints create problems for support services.

Problems Using the Services Provided

Many learners are not able to use the open university support services for the following reasons:

- They live a long way from the study centre and adequate transportation is not available.
- They face disabling economic conditions.
- The movement of women is socially restricted in some communities.
- They depend mainly on postal services for the exchange of information.
- The libraries at study centres remain largely unused because students cannot borrow books.

Attrition Problems

Students, once enrolled, tend to drop out for one or more of the following reasons:

- They are unable to cope with the learning package because they lack proper study skills or are not oriented to open learning.
- They are unable to devote sufficient time to study because of social, domestic, or professional preoccupations.
- Their sense of isolation is exacerbated by delay in receiving course material and other communications from the university.
- Proper support may not be available at the local centre.
- The course content of IGNOU programmes may be too difficult compared with courses offered at traditional universities.
- They are not proficient in the language in which the course material is available.

Problems with Technology

IGNOU has tried to use all the technology available for programme delivery, as well as provide learners with effective support. However, the following issues need to be resolved before the available technology is fully used in student support services. For example, IGNOU has produced audio and videotape cassettes for all its programmes, but these are not well used by many learners because:

- All students cannot visit the study centre and so they miss the cassettes available there.
The time slot available for the IGNOU telecast on the national television network is inadequate (only 90 minutes a week) in relation to the large number of video programmes IGNOU produces. The facility for broadcasting audio programmes over All-India Radio is not currently available, except in the areas covered by Bombay and Hyderabad All-India Radio stations.

Another technological problem relates to IGNOU's Central Computer Division, where all student records are maintained. Computers have been installed at every regional centre as well. However, without a computer network, timely information cannot be provided to students especially in cases when there have been changes of address, study, electives, or language, or when there are queries about mistakes in grade cards and examination results.

FUTURE DEVELOPMENTS

IGNOU plans a number of changes in the ongoing development of open learning in India.

- The network of study centres may be further decentralised by opening more subcentres under each study centre.
- The existing infrastructure at the study centres may be further augmented with photocopy and communication facilities such as telephone and telex.
- Mobile study centres may be established for the benefit of learners living in remote areas.
- The frequency and duration of IGNOU telecasts on the national television network may be increased.
- Special facilities to support learners who have handicaps will be devised and implemented.
- Audio-teleconferencing facilities may be created in places like Lahksdweep, Andaman-Nicobar Islands, and some parts of the North East, Jammu and Kashmir, Himachal Pradesh, and the hill region of northwestern Uttar Pradesh.
- More functions will be decentralised to the regional centre.
- The way study centres are staffed will be reviewed in the light of experience.
- Performance evaluation of part-time staff at study centres will be introduced and less committed employees will be eased out of the system.
- Monitoring and staff development activities at regional centre and at headquarters will be further intensified.
- Frequent interaction among student support services staff in IGNOU and other state open universities may be made regular features under the newly constituted Distance Education Council.
V. Venkaiah

INSTITUTIONAL PROFILE

The Andhra Pradesh Open University, renamed Dr. B.R. Ambedkar Open University (AOU), was established in 1982. Representing a unique system of open learning, the university helps realise the democratisation of higher education and the ideal of continuing education. Without any restrictions on age, sex, occupation, or residence, the AOU extends educational opportunity to people in all walks of life. It undoubtedly testifies to the vision and concern of the Andhra Pradesh government for raising the educational level of the people and improving their quality of life.

Objectives of the Andhra Pradesh Open University

The objectives of the AOU as laid down in an Act of the Andhra Pradesh State Legislature are:

- to provide educational opportunities to students who are unable to take advantage of traditional institutions of higher learning;
- to realise equal opportunity for higher education for a large segment of the population, including the employed, women, especially housewives, and adults who wish to upgrade their education or acquire knowledge through distance education;
- to be flexible about eligibility for enrolment, age of entry, admission procedure, choice of courses, method of learning, and the conduct of examinations;
- to complement the programmes offered by existing universities, while maintaining the highest academic standards;
- to promote social integration within the state through appropriate policies and programmes;
- to offer degree as well as non-degree certificate courses for the benefit of the working population and for the benefit of those who wish to enrich their lives by studying subjects of cultural and aesthetic value; and
- to provide for research and for the advancement and dissemination of knowledge.

Student Enrolment

The Andhra Pradesh Open University admitted its first students in 1983–84 in its undergraduate programmes. By the 1990–91 academic year, new undergraduate admissions totalled 27,446. The university admits undergraduate candidates through both the formal and non-formal streams. Candidates admitted through the formal stream (71% in 1990–91) are those who qualify at the +2 level programme that is conducted by state or central boards of secondary education or who qualify in other equivalent courses that are
recognised by the university. However, in the non-formal stream (29% in 1990–91),
candidates must pass the eligibility test that AOU conducts once a year.

More than 91% of the students admitted in 1990–91 are under 30 years of age. Most
study in the Faculty of Arts (84%), with 7% in Commerce and 9% in Science. The
number of students enrolled in the vocational programme in 1990–91 totalled 2,091.
Most students (82%) study in the local Telugu language, but 18% study in English.

Organisational Structure

Like traditional universities, AOU is an autonomous institution of higher education. The
governor of the state of Andhra Pradesh is the chancellor of the university. The execu-
tive council is the governing body of the university and formulates policies, establishes
rules and regulations, and supervises and conducts all university activities for its overall
administration. The vice-chancellor is the chief executive officer of the university and
chairs the executive council and other policy-making bodies. He or she is guided by the
planning board and academic council. Currently, the university’s administration
functions with four directorates: academic, student services, material production, and
evaluation. The registrar and finance officer, as statutory authorities, provide necessary
support and extend help in the administration of the university. The academic director is
assisted by the deans of each faculty, who are in turn assisted by the heads of the
departments and faculty members.

AOU offers two types of study programme. One is the basic degree programme that
leads to a degree in Bachelor of Arts (B.A.), Bachelor of Commerce (B.Com.), or
Bachelor of Science (B.Sc.). The other study programme includes vocational pro-
grammes that lead to either a degree, diploma, or certificate. The bachelor’s degree
programmes in library science (B.L.S.) and public relations (B.P.R.), a postgraduate
diploma in public accounting (PGDPA), and a certificate programme in food and nutri-
tion (CPFN) are offered in this category. Jointly with an autonomous research institute,
the university is offering research programmes leading to M. Phil. and Ph.D. degrees in
commerce, management, and social sciences. Plans are underway to launch a post-
graduate degree programme in management (M.B.A.), mathematics (M.Sc.), political
science (M.A.), and public administration (M.A.) during the 1992–93 academic year.

The full administrative structure of the university comprises a number of discrete
departments. These include the following branches: academic, material production,
evaluation, and examination. One of the newer branches that is central to course delivery
and student support is the Audiovisual Production and Research Centre (AVPRC).
Although the AVPRC started functioning in 1985, the university has been broadcasting
its lessons over All-India Radio for three hours a week in English, Telugu, Urdu, and
Hindi since 1983. Broadcasts are currently on medium wave with short wave support to
reach out to students throughout Andhra Pradesh. In addition to radio broadcasts, some
lessons are supported by audio cassettes, which are prepared and sent to the study
centres. Videotape lessons in various subjects are also produced.
STUDENT SUPPORT SERVICES AT THE ANDHRA PRADESH OPEN UNIVERSITY

The student services branch recruits students, organises face-to-face contact sessions, and extends other forms of academic support to its students. They also arrange laboratory science practicals at the study centres for second- and third-year students and intensive coaching programmes known as "Summer/Winter School". These include lectures by experts in the subject and form part of the student support services this branch provides. The student services branch thus serves as an information bureau; as an office for the admission of students to various courses of study; and as a channel of communication between the university and its students.

The key components of the student services system at AOU include:

- printed course materials supplied by the university;
- face-to-face contact sessions at study centres;
- video and audio tape lessons made available at study centres;
- radio broadcasts on Radio Daily at a fixed time in six half-hour slots four days a week;
- summer school for first-year undergraduate and vocational students;
- laboratory practicals at zonal study centres for science subjects;
- reference library facilities; and
- lectures and seminars on topics of social relevance and current importance.

Study Centres and the Counselling System

The university has a network of 85 study centres spread across Andhra Pradesh. Of these 85 study centres, 22 are located in urban areas, 31 in semi-urban areas, and 32 in rural areas. Face-to-face counselling is provided at these study centres, as well as at university headquarters. Counselling deals with academic pursuits, career planning, choice of optional subjects, course units, assignments, examinations, audio and video lessons, and so on. The university reviews the counselling system from time to time and changes the methodologies of the system whenever necessary, based on feedback from students.

Counsellors

The university organises regular face-to-face contact sessions at the study centres with the help of counsellors, who the university appoints on a part-time basis. The university used the services of 2,894 counsellors for different courses during the 1991–92 academic year. Of these counsellors, 2,778 teach in the undergraduate B.A., B. Com., and B.Sc. programmes, while the others are employed in various diploma programmes.

Face-to-Face Contact

The face-to-face contact sessions relate to course units, summer schools, and laboratory practicals for science courses. Face-to-face contact sessions are held on 21 Sundays in an academic year, that is, for 42 hours per course for the first-year undergraduate programme. For the second- and third-year undergraduate programmes, the contact sessions are held for 24 hours per course. The students of second- and third-year B.Sc.
programmes are provided with 96 hours of laboratory practicals for each course, of which 72 hours are allotted for hands-on experiments and the rest for demonstration and videotaped experiments. A total number of 576 hours are allocated for laboratory experiments for six courses. The second- and third-year B.Sc. students are required to pay an additional fee of 450 rupees towards the lab fee for practicals for six courses.

In addition to the regular contact sessions, the first-year students are provided with summer school for four days, that is, eight hours of intensive teaching per course. During summer school, special lectures are delivered by experts in different subject areas. These summer schools are organised at the study centres. No additional fee is charged for them.

The schedule of contact sessions and the summer school programme are communicated to students by individual letters sent from the student services branch at headquarters. As well, the study centre coordinators give wide publicity about the programmes through local newspapers. Attendance is not compulsory for the face-to-face contact sessions and summer school. But, attendance is compulsory for science practicals. The science students are not allowed to sit the examinations if they do not have a minimum of 75% attendance in the practical sessions. The university does not provide board and lodging to the students who attend either face-to-face contact sessions or summer school.

CERTIFICATE AND POSTGRADUATE PROGRAMMES

Face-to-face contact sessions are available for B.L.S., B.P.R., and the diploma course in public accounting. Attendance is not compulsory for face-to-face contact sessions and summer schools in programmes for the postgraduate diplomas in public accounting and public relations. On the other hand, in the B.L.S. programme, attendance at summer school and the submission of assignments are compulsory. Public relations students are required to submit a project report as partial fulfilment of their degree. Again the university does not provide board and lodging for students to attend face-to-face contact sessions and summer school. No railway concession is available to certificate and postgraduate students.

PROBLEMS AND REMEDIAL MEASURES

Because face-to-face contact is the most important component of the student services system at open universities, a study was undertaken to assess how well undergraduate students (B.A., B.Com., and B.Sc.) use the sessions. The problems faced in organising contact sessions were also examined. Remedial measures are suggested here to make the operation of support services more efficient and effective.

The data relating to the use of face-to-face contact during the 1990–91 academic year have been analysed in this study. The data were collected from the coordinators of 45 study centres of the AOU through a questionnaire. The data constitute information relating to face-to-face contact sessions, laboratory science practicals, and general counselling at the study centres. The study investigated the number of counselling sessions that actually took place at the study centres. Analysis revealed that more than 20% of the study centres did not organise all the counselling sessions scheduled during 1990–91. Reasons for this shortfall included that laboratory space was not available at the host institution or that the heads of the institutions where the study centres are housed
were not cooperative. The rate of attendance of undergraduate students at the face-to-
face contact sessions during the 1990–91 academic year was quite variable, ranging from
31% to 50% at all study centres. Among the different teaching methods the counsellors
used, lectures predominated (30 of the 45 study centres (67%) offered lectures). The
next important teaching method is lecture combined with discussion, which was used at
18 study centres (40%). At 10 study centres, demonstration lectures were used. No
study centre offered supervised study. As for the use of instructional materials, it is
found that charts, audio lessons, and video lessons are predominantly used in more than
50% of the study centres. Five study centres (11%) used only models and apparatus for
demonstration in teaching the course units.

The survey revealed that 31% to 50% of first-year students attend summer school at 21
study centres (47%). At 12 study centres, the attendance is 51% to 70%. The attendance
is the lowest, ranging from 11% to 30%, at 10 study centres.

The study helped to identify some problems related to organising and managing face-to-
face contact sessions at the study centres. These problems can be divided into two
categories. The first relates to the inadequacies of counsellors and counselling methods,
and the second relates to the problems coordinators face when organising the contact
sessions. In a broader sense, these problems can be of both an academic and
administrative nature. These problems and certain of the remedial measures to overcome
the difficulties in organising the contact sessions are discussed below.

**Academic Problems**

The purpose of the contact sessions is to ensure a good deal of interaction and discussion
between students and counsellors. In most cases, however, these sessions are reduced to
mere lectures, which defeat their very purpose. This is due to two reasons:

- lack of trust in the self-study materials as a medium of learning; and
- lack of pre-study of course units by the students.

Although it is very difficult to break away from the current, popular lecture method of
teaching, it is important to note that converting contact sessions into lecture sessions
defeats the philosophy of distance education. Therefore, it is necessary to change from
lecture-oriented sessions to contact sessions in their true sense. This is possible only
when counsellors make use of an integrated lecture-counselling method and slowly
prepare the students to adapt to open learning through counselling. One method is for
the counsellor to start with a lecture in the first session. As it continues, the lecture
becomes interactive, interspersing discussion with general information. At the same
time, the counsellor clearly explains that this type of teaching will not be continued in
future sessions. The counsellor can also discuss the demands of distance education. This
approach makes students familiar with the subject as well as with open learning methods
and helps them learn through an interactive exchange. By the second session, the
initiative must be slowly passed on to the students, making the session more interaction
and less lecture. But the need for talking about open learning and reinforcing the
features of distance education should be emphasised. Gradually, what students expect
from the counsellor will begin to shift. They will thus no longer expect a straight lecture
from the counsellor, but a more interactive session. By the third and fourth sessions, the
counsellor can really make the sessions discussion- and interaction-oriented.

Another important problem related to counselling is that a large majority of the
counsellors have not been provided with the necessary training in ways to counsel
students in distance education. They have been put on the job and left to learn from experience. Unless a counsellor develops a sincere commitment to counselling in distance education, he or she cannot contribute much to the development of the distance education system. Occasional seminars, workshops, and training programmes on distance teaching methods would help counsellors acquire the skills required for teaching and learning in distance education.

ADMINISTRATIVE PROBLEMS

The coordinators of the study centres have observed that they face many problems in organising face-to-face contact sessions and laboratory science practicals. Distance education operates under a “dependency model” and hence it requires a strong rapport with the principals and management of the host institutions for the successful conduct of the sessions. The main problem in conducting contact sessions is that space is often not available. Although the principals of host institutions are ex-officio principals of the study centres, they may not show a genuine interest in the study centre. They may be committed to other agencies for the conduct of examinations and so on, and on some Sundays principals give preference to the other agencies and not to the open university sessions. When the coordinator contacts the principal for accommodation to hold the regular contact sessions, the principals may shift the responsibility to the district counsellors or the convenors of various examinations. It is desirable for the open university to hold meetings periodically with the principals and management of the host institutions to convince them of the need for holding regular face-to-face contact sessions. This would enable the coordinators to overcome frequent disturbance of the open university’s academic calendar for various outside examinations.

Another important problem that the coordinators express is that some of the counsellors do not attend the contact sessions according to schedule, thereby inconveniencing and embarrassing the study centre coordinators and disappointing students. An open university student is provided with a limited number of face-to-face contact sessions in an academic year. Therefore, it is necessary for a counsellor to attend the sessions regularly and ensure that the students make the best use of the classes provided. If the counsellor plans to be absent from any contact session he or she should inform the study centre coordinator in advance so that alternative arrangements can be made.

CONCLUSION

The face-to-face components provided by the Dr. B.R. Ambedkar Open University for different academic programmes are quite satisfactory and comparable to those of any other open university in the world. The rate students use different types of face-to-face components is satisfactory. It is possible to make these contact sessions more accessible to distance learners and more effective and useful as a component in distance education if the host institutions and counsellors extend full support and cooperation to the university in its endeavour to extend higher education to all people. This will be possible only when change is bought to the attitudes of all university personnel — principals, teachers, coordinators, counsellors, and non-teaching staff.
KOTA OPEN UNIVERSITY

K. Gautam

INSTITUTIONAL PROFILE

Kota Open University was established in 1987 as part of India's open university network. Its objectives are to enhance accessibility to education and support the government's literacy mission. Rajasthan is educationally underdeveloped in relation to the rest of India. Literacy in the state is very low, as is the level of education among women. Therefore, the main objective for Kota Open University is to provide educational services in all disadvantaged areas of the state as well as educational opportunities to people who are deprived of the benefits of higher education for a number of socioeconomic and geographical reasons. Further, Kota Open University serves those who are interested in upgrading their skills and qualifications in order to advance their careers.

Kota Open University contributes to the promotion and achievement of the government's objectives for adult education through its bachelor's degree professional programmes. Each student enrolled in these courses is required to provide literacy instruction to two adults in Rajasthan as a requirement of the course. The students obtain a certificate from the district adult education officer as proof that they have provided literacy training.

Organisational Structure

Kota Open University is organised as follows. The governor of Rajasthan is the chancellor of the university. The board of management, academic council, planning board, and finance committee are important university bodies. The vice-chancellor, directors, registrar, and finance officer are the main officers of the university. They carry out their tasks through the following divisions:

- Admission and Evaluation;
- Materials Production and Distribution;
- Planning and Development;
- Science and Technology; and
- Academic.

So far Kota Open University has introduced eight academic and professional programmes — three of these are bachelor's degree professional programmes and five are diploma programmes. The bachelor's degree in education is open only to in-service teachers. Likewise, the bachelor's degrees in journalism and mass media are open only to practising media personnel. Four of the programmes are offered in Hindi, while the other four are offered in English. The university intends to launch three postgraduate, six diploma, and one new bachelor's degree programmes in the near future. The programmes already offered and those about to be launched indicate that Kota Open University is consciously emphasising vocational and technical programmes rather than conventional degree programmes. The state government is also keen for the university to concentrate on vocational and professional courses.
Enrolment

The first enrolment year, 1988–89, saw 18,000 students register. Of these, 10,618 were in-service teachers registered in the Bachelor of Education programme. In subsequent years the enrolment in the Bachelor of Education course was cut to 5,000. The enrolment in other courses either decreased or remained at the same level. The decline in enrolment in other courses may be attributed to poor student support services at the university. Effective steps are now being taken to strengthen student support services. A proposal is currently under discussion which would decentralise the distribution of printed study materials to study centres and regional centres. There is also discussion of decentralising the admission practices, within the prescribed admissions framework of the university. This policy of decentralising admission procedures will cut unnecessary delays and slow and ineffective delivery procedures, thereby enhancing course enrolment.

STUDENT SUPPORT SERVICES AT KOTA OPEN UNIVERSITY

Student support services at Kota Open University have three main components:

- counselling through face-to-face interaction at each study centre;
- audiovisual material to support and reinforce the counsellor’s instructional guidance related to course content; and
- library facilities at the study centres and regional centres.

The development and administration of student support services are the responsibility of the directorate of regional services at headquarters. Implementation is looked after by directors at the regional centres and coordinators at the study centres. A network of six regional centres report to district headquarters. Currently 24 study centres operate, of which three are study centres dedicated to Bachelor of Education students only. A further study centre is planned for each district headquarters. Regional centres are mainly responsible for expansion, supervision, and coordination of student support services within the given region, as well as training part-time staff for the study centres. Regional centres also organise orientation programmes for academic counsellors.

Every Kota Open University regional centre is equipped with a resource library, video equipment, a photocopier, a duplicating machine, and computers. Study centres are managed by the part-time chief coordinator, coordinator librarian, and other support staff. They are equipped with a skeletal library and video equipment. The main functions of the study centres are to organise counselling and tutoring sessions, arrange for video presentations when available, handle assignment evaluation, and conduct end-of-term examinations.
PROBLEMS AND ISSUES

The credibility of the distance education programmes in the open university system directly relates to the efficiency of its student support services. Distance learners, as compared to their counterparts in the traditional system, feel isolated from both their co-learners and the university. Some of the problems which can render student support services dysfunctional include the following:

- Long and tedious admission procedures.
- Incredibly slow delivery of printed study material. Further, the study materials lack clear instructions about the course package, what it should contain, and how to use it.
- Poorly organised and ambiguous tutoring schedules.
- Absence of an enquiry desk at each study centre and regional centre that is staffed by trained personnel who are highly interested in the learner.
- Absence of an academic calendar that gives firm dates for admission, course and programme starting dates, and submission dates for assignments and examinations.

Attrition remains a problem for a variety of reasons. Social, economic, geographic, and linguistic constraints create problems for the support services, because to a large extent they prevent students from using student support services at an optimum.

In addition to these problems, to date Kota Open University has not been able to make its own videotapes to supplement courses, although the Guide for Applicants mentions that printed course materials will be supported by audiovisual material. Unfortunately, the audiovisual material available remains underused because a very small percentage of learners visit the study centres for counselling.

A further problem is that many students expect too much of the faculty. Most students are caught in a “degree/diploma syndrome” and often lack the motivation to learn on their own. While we may be thrilled with the philosophy and prospects of the open learning system, we are not completely disengaged from assumptions about conventional institutions. We need to get beyond our belief in the so-called obvious advantages of face-to-face classroom instruction. Otherwise the effort to strengthen student support services will be ineffective.

SUGGESTIONS FOR AN INSTITUTIONAL RESPONSE

- The student drop-out rate would certainly be minimised if support services provided sufficient orientation to the open learning system. Prompt support at the local centre would reduce frustration among learners and encourage them in their study.

- The regional director should spend 10 minutes each day meeting with support staff “over a cup of tea” in order to promote cordiality and solidarity among them. This should also inspire staff to respond to student queries effectively and humanly. Their responses at the enquiry desk or on the telephone should not be routine, but reflect interest in the students.
- Since the study centre is the immediate contact for students it should employ a permanent, well-trained counsellor to advise and guide them in every component of the courses and ways to learn through distance education. The counsellor should also act as a public relations representative of the university in the area. As well, he or she should stay fully informed about the latest developments in communication media and distance education. He or she should obtain regular feedback from students about the adequacy, efficiency, and responsiveness of various support services, and properly supervise the function and effectiveness of those services.

- Libraries at the study centres should be more functional. They should remain open on Sundays and public holidays. On weekdays, the library should be open for two hours before and after government office hours. These longer hours will ensure that the library is used.

- Every student would get their course packages in time if study centres arranged for their distribution.

- Personal contact programmes could be converted into socially and culturally meaningful get-togethers, as a valuable step towards minimising the isolation learners feel.

- During class, promotional materials can be distributed to give a comprehensive profile of the university and its activities. The university could also distribute articles to educate students in the basic philosophy of distance education and how to be a responsible and responsive distant learner. Further, summaries of the experiences of previous students in the same course should be made available to current students. These materials would give the learner a sense of belonging to a wider community of learners.

- The learner has immense potential as a resource in making the student support services responsive. Past and current students of a particular course can be brought together to interact. The addresses of previous students could be circulated to current students so that they can meet and benefit from their previous experience. This service costs nothing yet works as a viable component of student support services. Senior students in bachelor’s and master’s programmes can also be involved to enlarge opportunities for students. They can be encouraged to form local study cells which meet frequently to share their learning experiences and difficulties.

- Dependence on the newspapers for conveying specific course information to the student should be minimised because the newspapers reach some regions only after several days. In addition, a large number of students in Rajasthan do not read newspapers. Many cannot afford to buy them. Instead, local schools could be used as resource centres.

A VIEW TO THE FUTURE

Working in distance education should be viewed as a professional commitment. A sense of purpose is needed in all employed in the open learning system. The organisational structure of student support itself cannot make it responsive. Its operation must have a human touch and personal involvement in order to ensure a high degree of responsiveness. Love for all and indifference to none is the most effective support service.
YASHWANTRAO CHAVAN
MAHARASHTRA OPEN UNIVERSITY

N.R. Bhadane

INSTITUTIONAL PROFILE

Yashwantrao Chavan Maharashtra Open University (YCMOU) was established in July 1989. Its headquarters are located in Nashik, a city 100 km north of Bombay. YCMOU is the fifth open university in India and the fourth at the state level. The university emphasises vocational, technical, and professional training, as well as general education programmes. Its goal is to be “mass varsity”, a university for all people, providing training and retraining as part of developing a new work culture. The university has set out to create a unique identity on the national education scene. The university’s special features include the following:

- As part of the university’s goal to become “mass varsity”, most of the programmes are offered in the regional language, Marathi. English is used at some levels for courses in science and technology.
- Vocational and technical courses are emphasised.
- The university is committed to becoming self-sufficient in operating costs within five years of being established.
- The university aims to use the latest technology and teaching techniques.
- The university develops networks that are instrumental to national social development.

Objectives

The objectives of the university are:

- to make higher education and vocational and technical training available to a large segment of the population;
- to give special attention to the needs of disadvantaged groups, in particular, women and people in rural, underdeveloped, and remote areas;
- to strengthen and diversify the degree, diploma, and certificate courses at various educational levels and relate all university courses to the development needs of individuals, institutions, and the state;
- to provide innovative, flexible, and open systems of education by using distance learning methods and by applying modern communication technology;
- to provide continuing education to adults, with special attention to retraining adults in new skills that enable them to adjust to a changing technological environment; and
to provide postgraduate studies and research opportunities in all fields of knowledge, especially in educational technology, distance education, and developmental communication.

The University Structure

The structure of the university must be appropriate to the task of fulfilling its objectives. The structure should also allow efficient and cost-effective decision-making and quick implementation. At the same time, it should be accountable and open to change. The university’s structure must evolve in the light of experience to provide whatever its educational programmes require.

Organisational Structure

The university is governed by a board of management, an academic council, a planning board, and a finance committee. The YCMOU structure is bifocal, with the board of management as the principle executive body, and the academic council as the principle academic body. The planning board is the principle planning body and is responsible for monitoring the university’s development. Currently, the planning board is carrying out academic council functions. Programme advisory committees are appointed to develop educational programmes and guide the schools in various disciplines. The schools comprise divisions, which are the basis of the administrative structure. YMCou’s three divisions include:

- academic division;
- academic services division; and
- student services division.

ACADEMIC DIVISION

The academic division systematically judges the needs of students and society and prepares educational plans to fulfil those needs. It is the function of the academic division to develop printed instructional materials and to help in developing audio and video materials and the delivery of educational programmes. The academic division consists of the following schools:

- Humanities and Social Sciences;
- Commerce and Management;
- Education;
- Science and Technology;
- Computer Science;
- Agriculture; and
- Continuing Education.
ACADEMIC SERVICES DIVISION

The academic services division provides services for improving the overall instructional quality of university materials. It consists of three centres:

- Centre for Instructional Technology;
- Research, Development, and Evaluation Centre; and
- Training Centre.

The functions of the academic services division are closely linked with the academic division, print production centre, and audiovisual centre. The academic services division improves the print and audiovisual learning materials through transformation to another medium, or simply by editing.

The academic services division also includes a computer centre, which provides computer-related services to all divisions and centres. From the beginning the university has aimed at thorough computerisation. It is especially necessary since an institution like YCMOU must create and maintain records for several thousand students over long periods of time. A design for the complete computerisation of all functions has been prepared in consultation with a commercial agency. Currently registration and examination work is computerised.

The central library, a further part of the academic services division, offers services to academics at the university and others associated with the university. The central library also assists students through study centres. At present its collection consists of 7,723 books and 93 journals. A special feature is the Yashwantrao Chavan Collection. The central library also maintains a collection of audiovisual programmes.

STUDENT SERVICES DIVISION

Ensuring that books and other learning materials reach the student and that the student is given adequate individual help through planned contact sessions at the study centres is the responsibility of the student services division. It not only provides all services to students, but manages regional centres, study centres, subcentres, and work centres as well. In addition, the student services division registers students, allocates students to study centres, selects and supervises the study centres, appoints and trains counsellors, and evaluates students. Currently the Student Evaluation Resource Centre (SERC) within this division is developing procedures for a computer-based question bank for use in all forms of student evaluation. SERC is also developing a proposal to create an organisational structure for student counselling.

Programmes

From the beginning, YCMOU's thrust has been to produce and deliver a variety of programmes in different disciplines reaching a diverse strata of society. The general degree programmes provide education to adults who have had to discontinue their education at the primary or secondary level. The general degree programmes also cater to working people who were not able to continue beyond the senior secondary level. In-service courses for teachers and field courses for farmers are also offered. Further, YCMOU concentrates on science and technology courses and vocational continuing education courses. YCMOU currently offers two degree programmes and four
certificate or diploma programmes. An additional 28 certificate and diploma programmes will be launched by September 1992. Since the university opened in 1989, 30,858 students have been admitted. The academic and vocational programmes that the university provides are intended to be taken by a wide section of the community with varying backgrounds. Although the university is unable to operate a true open entrance policy, it has devised a policy with sufficient flexibility to ensure that the majority of potential candidates are admitted. An academic programme is normally offered to potential students only after the instructional material — both print (books) and non-print (audiovisual) is ready, the study centre identified, counsellors appointed and trained, and the method of evaluation decided. The structure and function of the various centres are briefly outlined below.

Regional Centres

YCMOU has very recently established regional centres at Bombay, Pune, Nashik, Aurangabad, Amravati, and Nagpur, the headquarters of the six revenue regions of the state. The regional centres are located in existing colleges and on university campuses. A total of 800 to 1000 square feet of space is exclusively allocated to the regional centre for office, store, and records. Almost all sites are provided rent free. Meeting and seminar halls are made available by the host institution as and when required. The university has also provided the clerical assistance needed. Initially the university appointed two individuals — one from the host institution and another external appointment — to work as honorary part-time regional directors. Regional directors and the clerical staff have now been trained and oriented to the functions the regional centre provides. YCMOU has equipped these centres with the necessary office furniture, stores, and equipment. As the centres grow, they will be provided with computers and reprographic equipment, among other technological facilities.

Study Centres

The study centre is defined as a “centre established, maintained, or recognised by the university for the purpose of advising, counselling, evaluating, or rendering assistance required by the students”. Study centres have so far been selected on a programme basis and are generally located in the districts. The study and work centres are identified and approved by the regional director with help from a local expert from the region. Most existing study centres are located in colleges, and staff from the college act as part-time course counsellors, who have access to YCMOU instructional materials, in both printed and audiovisual formats. Currently 88 study centres and 25 subcentres employ 1,055 part-time counsellors. The normal student/counsellor ratio ranges between 1:25 and 1:100.

The study centres actually implement the programmes. As well, they regulate and monitor certificate level programmes conducted at work centres and workplaces, and preparatory and foundation courses conducted at subcentres. Host institutions have provided a room where the office of the coordinator, administrative staff, and a store of books and records are housed.
Subcentres

All study centres for the Bachelor of Arts and Bachelor of Commerce programmes are located at the district level. Many times the location of these study centres is inconvenient for students who live in remote areas but want to join the general degree course. Therefore it was necessary to locate some centres at the sub-district level (Tehsil level). These centres are called “subcentres”. In every district, three to five subcentres as required are approved. These centres implement the “preparatory programme” (the qualifying programme for entry to the bachelor’s degree programme) and the foundation courses (first year of bachelor’s degree programme). For optional and applied courses, second- and third-year students are transferred to the study centre at the district level.

Work Centres

Each study centre selected for a vocational programme implements a minimum of three certificate courses, with 20 students in each course. The minimum intake for a certificate course is ten students, and the centre will not function unless a minimum enrolment of ten students per course is achieved. If enrolment is lower than ten, two or three centres can pool their students for common instruction. If enrolment exceeds capacity, the study centre, in consultation with the regional centre and YCMOU, can establish another centre for conducting practicals. This subsidiary is called a “work centre”. Work centres work under the control and overall guidance of the study centre. Its function is to conduct practical and laboratory training in accordance with the workbook, collect manuals from students, assess results, and report to the study centre. The work centre has the necessary infrastructure in place and may have one or more certificate courses, but not more than three at a time.

Workplaces

It is possible that some students are already working in an organisation and would like to complete a course while continuing to work. They can do their practical work at their place of work and need not attend a study centre or work centre for practicals. Such students may attend the study centre to view audiovisuals and to be assessed periodically, as the study centre advises. The students are required to complete practical training in accordance with the workbook and to prepare their own workbook journal after having studied the topic in the learning materials. They may seek guidance and advice from the study centre, which will test and certify the student. The study centre also certifies that the student has completed practicals. The workplace concept is a good synthesis of learning while working to earn a living. The university aims to attract more students in this category, and asks only a concessional fee from these students. Thus, the study centre, work centre, and workplace serve as platforms for learning the knowledge and skill component of vocational courses. The books can be studied at home and difficulties can be solved at the study centres. Audiovisual materials can be shown at study centres and practicals can be done either at a study centre, work centre, or workplace.

Pariwar

A further form of student support is provided through Pariwar. It is a peer group learning approach for some of the agricultural “Crop Wise” courses. A group of learners come together, discuss their problems, and seek guidance from a counsellor and fellow students.
PROGRAMME DELIVERY

Registration and Allocation to the Study Centres

Students are registered and enrolled centrally at the main office as well as at the study centres. First they buy a course prospectus and admission form from the study centres. Then they submit the completed form along with a demand bank draft, the only method by which YCMOU accepts payment for tuition fees. The study centre staff send these admission forms and demand drafts to the main office at Nashik, where lists with permanent registration numbers are consolidated and sent to the study centres. The fee receipts, admission record, and ID card are directly despatched to students.

Distribution of Study Material

Once the number of students enrolled for a particular programme at a study centre is finalised, study materials begin to be delivered. YCMOU initially experimented with delivery by mail to students' homes. However, considering the cost and labour involved, the idea has been discontinued. Now study materials are distributed through study centres. YCMOU delivers the study material to the study centres by various means, including hired trucks, bus parcels, and courier services. The study centre distributes the materials and keeps records.

Training and Orientation of Counsellors and Coordinators

Before the actual face-to-face contact sessions at a study centre begin, the course counsellors and centre coordinators are oriented to the open learning philosophy. This is important as most of the counsellors drawn from traditional institutions are accustomed to lecturing and other conventional methods of instruction. Orientation workshops are held centrally at YCMOU, and conducted by staff from the academic services and student services divisions. They orient the participants in effective ways of counselling and the organisational structure of YCMOU, as well as evaluation methods and their implementation.

Face-to-Face Contact Sessions

Each course is allocated a number of hours for face-to-face contact sessions between counsellors and the students. The exact number of hours is decided during course development by the academic division. YCMOU allots quite a high number of contact hours: around 16% of the total study hours (compared with 3% at the United Kingdom Open University and Athabasca University, and 7% at Indira Gandhi National Open University), for two reasons. First, many students find it difficult to adjust to distance education, and high levels of face-to-face contact are one way of providing additional support. Second, numerous counsellors adopt a more traditional teaching role rather than providing general guidance and support to supplement the distance teaching material. But students and counsellors believe that a YCMOU course cannot compare to a full-time course without a large face-to-face component. Hence, there is pressure for more contact sessions. This may mean that students lack the discipline for self-study. An attempt to tackle this problem is integral to the revised preparatory course, which is a prerequisite for entering general degree programmes.
Contact session counsellors are drawn from the institution where the study centre is located, with YCMOU routinely approving names that the local college principal suggests. Few counsellors have much experience with the needs of distance learners. More guidance about feedback to students and marking standards should be given to counsellors, even though this is financially difficult. Currently YCMOU staff do not monitor activities. Instead YCMOU relies on the local college principal and the course coordinator. The recent establishment of regional centres will help solve this problem.

Science Practicals

Through its schools of science and technology and continuing education and computer science departments, YCMOU is introducing technical courses. Presenting courses that require practical and laboratory experience via distance education is a challenging task. But YCMOU plans to deliver these programmes using a combination of teaching methods. Experimental activities focused at the study centre simplify the equipment and supervision needed. Specially designed experiment kits which the student can use at home are also supplied. These home experimental kits have their limits of course. They must be simple to set up and reliable. As well, they should be low cost. The cost of equipment increases if it is designed so that several experiments can use it.

In addition to practical and laboratory work at study centres and home experiment kits, YCMOU has developed a number of video and audio tapes to support practical activities. Videotapes provide extremely good examples of how to teach practical skills in a dynamic way. Audio tapes provide a commentary that leads students through the sequence of steps to be followed, which is supported with photographs. Audio tapes can be used with numerous small lessons, such as the use of a multimeter, as in the first programme to be introduced involving practical work, the Diploma in Applied Electronics.

Five study centres currently cater to about 200 registered students. The study centres provide counselling and supervision of the experiments, which the students carry out at the study centres. The students are also provided with a home kit with which to perform many experiments.

The Workbook

To provide students with detailed step-by-step guidelines about practical procedures as well as a place to record their observations, YCMOU has introduced a teaching booklet called the "workbook". Every student will be provided with a workbook for each practical course. The students follow the procedure for the experiment, perform the experiment, and record their observations. Students must present the resulting permanent record to the examiner at the end of the course. The workbook can also be shown to prospective employers, and it is thus a flexible and powerful tool. YCMOU has introduced the workbook concept for every certificate level course in the agriculture, vocational, and computer areas.

The workbook may serve different purposes depending on the nature of the course content and its objectives. Thus, for theory courses, the workbook may serve as an extension of practice exercises given in the study materials or it may function as a record for formative evaluation. For practical courses, the workbook may help to record
observations, daily work progress, or reports of experiments in and outside the lab and so on. Whatever the purpose, the workbook as introduced at YCMOU remains an important tool of evaluation.

Student Evaluation

From the beginning, YCMOU has emphasised the development of a student evaluation system appropriate to the objectives of different courses and relevant to the needs of distance learners. Therefore the evaluation system operating at YCMOU has distinctive features, including the development and use of comprehensive, well-characterised question banks. Question banks, maintained confidentially, serve as resource material for the construction of tests and assignments required from time to time.

Each course developed at YCMOU has a certain predetermined value of credit points (based on an estimate of the study hours required for it). Students at YCMOU are not assessed on a “pass” or “fail” basis. Passing all subjects at a certain level is not a necessary condition for admission to the subsequent year. Instead a student may collect credit for courses completed successfully and carry along a backlog of work that he or she must cover in due course. Considering the needs and difficulties of the distance learner, this is a much needed flexibility that any distance learning system should offer. Further, it is possible that a student, having cleared a certain course examination, would like to improve performance in that course by reappearing at the examination in order to obtain a better overall grade-point average. This is possible in the YCMOU evaluation system, which considers an individual’s ultimate grade point average before awarding a degree or diploma. The grading system, though still employed at YCMOU, is used primarily to arrive at course marks. The grading system is used only to reduce the subjective “error” factor when evaluating a student’s performance.

Continuous assessment, as a component of evaluation, is frequently applied to courses and programmes at YCMOU. Periodic class tests, home assignments, and exercises given in workbooks give vital feedback to the learner about the extent and level of his or her learning. A detailed system of communicating feedback, including a qualitative interpretation of the student’s performance, is gradually being undertaken.

The various courses developed by YCMOU may be classified into one of the following three types:

- theory courses that need written examinations;
- courses that require practical work skills; and
- courses that require some project or field work component.

For each of these types of courses, evaluation may be by continuous assessment or by final examination. Continuous assessment for theory courses is done through periodically conducted class tests and home assignments, as well as through self-assessment exercises included in the study material. Final examinations for theory courses make use of pencil-and-paper tests consisting of objective (mostly multiple-choice) and supply type questions. Continuous assessment for practical courses takes the form of lab experiments, home experiments, and oral exams. Examinations for performance in experiments, though not yet conducted, are expected to be held in controlled laboratory conditions. Continuous assessment for both theory and practical courses may also be done through the workbook that is supplied to students.
For evaluation of project and field work, the YCMOU proposes the use of supervisor’s periodic ratings as the tool for continuous assessment. The overall assessment of the project report by experts, in addition to an oral exam conducted by a panel of experts, is viewed as a component of the final examination. The average grades obtained in all courses within a programme are combined to yield the cumulative grade point average, which ultimately determines the award of a degree or diploma.

Student Characteristics

Many students in the general bachelor’s degree programme are unemployed and under 25 years of age. They lack the discipline self-study requires. Therefore they demand more and more contact sessions for each course and the dropout rate is quite high. On the other hand, many students in professional degree programmes, like the Bachelor of Education, are employed and have years of service to their credit. They are mature, well-equipped for self-study, and happy with distance education. Similarly, most female students are well-motivated and possess effective self-study habits. In the Diploma in Applied Electronics programme, most of the students are employed and have no problem with distance learning.

Almost all programmes enrol more students from urban areas. The rural to urban ratio varies among programmes but averages 1:2.4.

Technological Applications

The extensive computerisation in place at head office will be extended to regional centres and, if possible, some district centres. This network will allow the smooth flow of information. Other technological applications include the university’s plans to broadcast its educational programmes on radio and television, to supplement the audiovisual materials already provided to the centres.

PROBLEMS AND RESPONSES

It has been only three years since the university was established. Since procedures are not yet well-established, YCMOU does face many problems in the area of student support services.

Registration

The registration process depends on the postal service and this results in considerable delay. A solution is to entrust most of the admission work to the study centres. The study centre has its final list of students immediately and can thus plan their contact sessions. Meanwhile head office can feed the data into the computer and complete the procedure. Now that regional centres have been established the registration process will be even easier.
Distribution of Study Material

It would be ideal if the academic programme were launched only after the study materials were ready and the evaluation method decided. Often, however, the programmes are launched with only initial study material in hand and the remaining material is delivered as the programme progresses. If the study material is not delivered as scheduled, the students and study centres are greatly inconvenienced. Occasionally study and evaluation materials are misdelivered by the courier services employed. Therefore alternate methods are now being used.

Services at Study Centres

Some of the problems encountered at the study centres include the following:

- Students complain that many times the centre staff, particularly the programme coordinators, are not available to provide the guidance they need.
- Many of the young, less mature students require much more counselling and teaching support. YCMOU must provide them with a large number of counselling sessions.
- Many counsellors tend to use the contact sessions as an opportunity to teach course content rather as a time to counsel students and solve their problems.

Yet student-to-student interaction at contact sessions results in greater understanding of the material and develops skill in solving problems. Interactions with fellow students at the study centre is very beneficial for students because it creates the feeling of togetherness. Students can also exchange ideas and study methods. Encouraging the correct approach to contact sessions is a solution to this problem. More orientation workshops for counsellors will help them adopt counselling methods appropriate to distance education.

Other solutions include a recently revised preparatory programme. This four-month programme qualifies the student for entry into a degree programme. The preparatory programme is skill oriented and aims to teach reading, writing, mathematical, and general study skills that help increase the student’s self-reliance.

A further solution is the educational network that YCMOU is proposing, which will better serve the student community. Regional centres, study centres for various programmes, subcentres, and work centres will help to better disseminate information about the distance education programme.

Attrition

The age of most students admitted to YCMOU programmes is under 25 and they are not mature in their study habits. Many of them are dropouts from formal education. When they seek admission to YCMOU programmes, they know very little about distance education and they are not equipped for self-study. Many of them think that open education programmes will be easier than traditional university programmes. Naturally, then, many students feel disappointed with the programme because they believe they do not get enough information from the study centre, they do not get enough attention from counsellors, the counsellors are not covering the total syllabus, the syllabi are too vast, and examinations are too difficult. The university is trying to equip study centres with a
better information network and highly motivated staff — both academic and administra-
tive. Motivated staff at the study centre can interact better with the students and that
will boost their morale.

Technology

The YCMOU initially plans to equip its six regional centres with personal computers that
will be connected to the computers at head office to establish an information network
that can be extended to district and sub-district (Tehsil) level and reach the smallest
institution. YCMOU also plans to use radio and television to take education to
everyone’s doorsteps.

Funding and Self Reliance

YCMOU charges its students a course fee. This means that even the disadvantaged
sectors of society — for whom the university was established — must pay. For the
disadvantaged, the fee has a high cost; those better off benefit from subsidised education.
YCMOU is exploring the possibility of helping students financially by establishing links
with the developmental programmes initiated by state and central governments such as
TRYSEM (Training of Rural Youth for Self Employment), Integrated Rural Develop-
ment Programmes, Jawahar Rojgar Yojana, and tribal welfare programmes. Some of the
cooperatives, local industries, and social organisations can also support needy students.
These agencies may even sponsor our programmes and bear the expenses of their
implementation. Students could also be encouraged to pay their tuition fees through
their work at the work centres and workplaces.

YCMOU is planning to be financially self-sufficient within five years of being estab-
lished. To achieve this, YCMOU must develop courses that meet student needs and
attempt to increase student enrolment. Increased enrolment can reduce the overhead
expenses in producing learning material, a benefit that can be passed on to students.

Our main concern is funding the regional centres and study centres. So far, YCMOU has
made a meagre provision of 8000 rupees per study centre for furniture and 2000 rupees
per centre for library reference books. YCMOU has provided one small audiotape
recorder to each centre. No televisions, videotape players, typewriters, or reprographic
equipment could be provided to the study centres. The administration staff, particularly
clerical assistants, complain of very low pay. The counsellors also complain of the low
honourarium they receive, even though they must work on holidays and Sundays. The
six regional centres that YCMOU has established will also have to be equipped with
proper staff, furniture, and technical equipment. YCMOU will be hard put to provide the
funding to staff and equip our study centres and regional centres unless appropriate
funding comes from the state government and Indira Gandhi National Open University.

CHANGES AND DEVELOPMENTS
IN THE STUDENT SERVICE SYSTEM

Educational Network

A well-organised educational network is being established, comprised of YCMOU
headquarters at Nashik, its six regional centres in Bombay, Poona, Nagpur, Amravati,
Aurangabad, and Nashik and, within this system, its study centres, subcentres, and work centres that are spread throughout each district. Their functions and procedures are being formulated. When YCMOU headquarters, regional centres, and study centres are connected by computer, improved evaluation technology will be possible. Class tests and final examinations will be made more objective and answer books will be marked by computer. Both steps will reduce the length of the examination period. In addition, an extensive computer database will reduce the strain on the student services division as YCMOU’s total number of centres increases beyond the 133 now in place, and the university expands its programmes to serve more students.

Local Relevance

The academic programmes developed at YCMOU must be supplemented to meet the local needs of different parts of the state. Instructional materials and designs must accommodate all these variations. Printed materials must be updated with supplements either in print form or on audio cassette, videotape, or computer disk.
THE OPEN UNIVERSITY OF SRI LANKA

D. G. Jayasuriya

INSTITUTIONAL PROFILE

The Open University of Sri Lanka (OUSL) was set up in 1978 and enrolled its first students in 1980.

Objectives

The prescribed objectives of OUSL are:

- to make higher education available to everyone;
- to provide mid-career training;
- to provide an opportunity to study while remaining in employment;
- to make lifelong education possible;
- to provide education even to geographically isolated areas; and
- to promote social mobility and self-employment.

The OUSL is essentially an autonomous university that offers its own programmes of study leading to certificates, diplomas, degrees, and postgraduate degrees and diplomas. It also offers associate student programmes and public education programmes that do not carry formal accreditation. The system of education is designed to make higher education available to everyone in compliance with the objectives of the OUSL. It adopts a multimedia approach, which is developed to suit local requirements.

The main purpose of the OUSL is to increase educational opportunities by opening doors to people seeking higher education. It is open to all who desire a university-level education, not only those who have passed the General Certificate of Education (Advanced Level). No formal educational qualifications are required to apply for enrolment at the open university, but applicants should be 18 years of age. The open university concept is clearly popular in Sri Lanka: Enrolment figures sharply increased from 3,990 students in 1990, to 14,942 in 1991.

Programmes

The open university conducts programmes leading to the following certificates, diplomas, and postgraduate degrees and diplomas:

- Continuing Education Programmes and Awareness Programme;
- Certificate Programme;
- Diploma Programme;
- Bachelor Degree Programme;
- Postgraduate Diploma Programme;
- Masters Degree Programme; and
- Master of Philosophy Degree Programme.
Student Characteristics

According to a recent survey conducted by the open university, 80% of open university students are employed; 74% of the total enrolment are 26 years of age or older. Of the 14,874 students enrolled in 1990–91, 38% were female.

Organisational Structure

The administrative structure of the university is similar to that of traditional universities. The post of chancellor is considered honorary. The vice-chancellor is the chief executive and academic officer of the university. The registrar is responsible for maintaining the records and property of the university and for its general administration. The other officers are faculty deans, the director of regional educational services, director of educational technology, librarian, and bursar. The council is the executive and academic body and governing authority of the university. The senate consists of deans and the director of educational technology, all professors, heads of academic departments, librarians, and permanent teachers that each faculty elects to the council. In total, the open university has approximately 750 staff. They are allocated to three faculties, administrative and support services, and the regional centres. About 60% of staff are nonacademic.

Apart from the main library at the central campus in Colombo, mini-libraries or reading rooms are available at all regional and study centres. The main library at the central campus is open every day from 8:30 a.m. to 7:30 p.m., including weekends. Because resources are limited, the libraries are for reference purposes only. Limited lending facilities are provided for undergraduate students at the main library on the central campus. In addition, 25 public libraries, situated in main towns, cooperate with the open university in providing library facilities for distance learners.

The open university has computerised the following areas of administration to provide an efficient service to students:

- registration and personal records;
- examination records, including results; and
- student fee collection records.

STUDENT SUPPORT SERVICE

A network of four regional centres and thirteen study centres is located across Sri Lanka to provide counselling, registration, distribution of course materials, face-to-face contact sessions, examinations, and, finally, a place for students to meet. The major objectives of student support services are:

- to create an environment conducive to distance learning;
- to facilitate the distance learning method;
- to motivate students to continue their education;
- to encourage socialisation and to promote team work and team spirit; and
- to improve the educational standards of students.

The regional and study centres provide facilities for both academic and nonacademic activities. Laboratory and workshop facilities are available at selected study centres, where students taking courses in science and technology have the opportunity to observe
demonstrations and engage in practical work. The regional and study centres maintain reference collections of mixed media packages that the university sends to students for home study. These include printed texts and workbooks, audio and video cassettes, films, and other relevant audiovisual materials, including copies of a selected number of video and audio programmes that the open university broadcasts over the Sri Lanka Television Corporation and Sri Lanka Broadcasting Corporation.

Although the home study materials are designed to help students learn independently, personal tuition and counselling are available at the regional centres. The open university conducts day schools and discussion groups in order to facilitate distance learning. “Computer Knowledge” students have the option of enrolling in a continuing education computer science course in addition to their academic courses. Any study problems the students encounter during their home study can be discussed at contact sessions when academic staff are available to solve learning difficulties. University teachers are available at the central campus each week during working hours and students are able to meet the staff at the central campus when required. Academic staff and regional officers act as counsellors. These counselling services are available to assist any student with problems that may be interfering with his or her full development as a student or as a person.

Non-academic facilities at the regional and study centres include short-term hostel accommodation in Colombo and other regional centres for those students who come from a distance to attend activities. Sixty male and sixty female students can be accommodated at the central campus. They pay a nominal charge for accommodation. The regional centres also provide canteens. Finally, photocopying services are provided at a subsidised rate.

Other student support services include a monthly student information system newsletter printed and mailed to all registered students the first week of every month. The newsletter gives information about nonacademic and academic activities, including examination and day school timetables. An estimated 70% of students use this newsletter to get information about activities at the open university. It helps to eliminate the communication gap between students and the university.

Limited medical facilities are available to students through the services of a qualified medical practitioner who is available for two or three days per week at the main campus.

Further, financial services are provided. A limited number of bursaries are available to students in the Bachelor of Science, Bachelor of Laws, and Diploma in Technology programmes. Students are selected based on their performance and financial need. The value of the bursary awarded to any student is equivalent to 60% of the tuition fees for an academic year. The scholarship funds are received from interest income on bursary deposits. Also, 1% of the total income from student tuition fees is allocated to the bursary fund.

The university supports a student council. Its aims and functions are to advance the interests and welfare of students, to afford a recognised means of communication between students and the university administration, and to encourage and coordinate the activities of student clubs and societies. The student council consists of 39 members, representing three faculties.

Student unions in each faculty promote peer interaction. In addition, teacher-student relation committees have been formed.
OUTLINE OF ISSUES

Use of Student Support

The rate of student support service use is high because resources are limited and the demand from so many students is very high. Extending the available student support services in relation to the number of students would improve the present situation and, judging from student requests, improved facilities might have some bearing on the attrition rate. Specific requests include extending to regional and study centres the student services available at the Colombo centre. These include audiovisual aids and equipment, recreational facilities, and improved library access for students.

Funding

Grants from the University Grants Commission (UGC) are the main source of income for the open university. Grants account for approximately 70% of total income. Student fees account for 19% of income and a further 5% comes from other income. The university obtains funds from the UGC according to the number of full-time equivalent enrolments. The UGC grant must be used mainly for capital projects and for university salaries and other essential services. No specific UGC provision is made for student support services. Consequently, the open university must generate funds for student support services, with inadequate funding the main issue in extending and improving student support services at the Open University of Sri Lanka. The cost of providing support services in the distance education appears to be higher than at traditional universities.

Interaction

In some programmes such as the Bachelor of Laws programme students demand increased face-to-face teaching components or more day schools, because they are accustomed to that approach. But as a distance education institution, the open university prefers to provide them with more printed and audiovisual materials. Although the open university promotes various student socialisation programmes through student clubs and associations, participation in extracurricular activities appears to be low compared with traditional universities for two reasons. First, employed students, who comprise 70% of the student body, have little time for socialisation. Second, the distance from their residences to the main campus and to the regional and study centres is too great.

A VIEW TO THE FUTURE

The Open University of Sri Lanka recognises the importance of extending student support services in order to improve the quality of distance education. Improving student support services relating to academic activities has been identified as a priority area. Development plans include a new library building with modern facilities. To provide more audiovisual facilities and aids to students in order to help their home study, a modern Centre for Education Technology is being constructed with the assistance of the Japanese government. With the completion of the project more television programmes and audiovisual aids will be available for distance education.
Some specific goals the student support services must pursue are:

1. to provide experimental kits and other aids for science and technology students to carry out their practical work at home;
2. to increase student participation in making decisions relating to student support services;
3. to explore the possibilities of raising funds from outside agencies such as provincial councils and private organisations in order to improve the student support services available at the central campus and in the regional and study centres; and
4. to increase awareness among students about the student support services available at the central campus as well as at the regional and study centres.
BANGLADESH INSTITUTE OF DISTANCE EDUCATION

M.D. Shahajuddin

INSTITUTIONAL PROFILE

Bangladesh Institute of Distance Education (BIDE) enrolled students in an experimental Bachelor of Education programme beginning in 1985–86. The basic qualification for admission in the Bachelor of Education course was a degree in arts, science, or commerce. Since the course was designed for secondary school teachers, at least two years of teaching experience was a prerequisite. During the years 1985–87, 1986–88, and 1987–89, a large number of applicants applied but only about 20% were admitted. During these three sessions 10,281 applicants were enrolled. Most were secondary school teachers; some were administrators and primary school teachers.

The Bangladesh Institute of Distance Education planned, organised, and managed the course, which was of two years' duration over four semesters. The Institute conducted examinations, scored answers, and published results with the help of 21 officers, 11 office staff, and about 10 other general support staff. In addition to BIDE staff, members of teacher training colleges in Bangladesh and the National Academy for Educational Management (NAEM) helped the BIDE run the course.

The Bachelor of Education course offered through distance education consisted of the following compulsory subjects:

- Educational Psychology;
- Principles of Education;
- History of Education;
- Educational Measurement; and
- Education and National Development.

Elective courses included:

- Bangla;
- English;
- Mathematics;
- Science;
- Social Science; and
- Geography.

Seven hundred marks were allowed for theoretical subjects and three hundred marks for practice teaching.

Staff of the BIDE were qualified professionals in various subject areas who actively participated in order to make the programme a success. The BIDE used qualified academics who were drawn from the teacher training colleges, NAEM, and the faculty at Dhaka University.
The teacher training colleges and NAEM also allowed students in the Bachelor of Education programme to use their libraries. Their faculty tutored BIDE students and members of the BIDE staff served as counsellors.

The BIDE had some limited technological resources with which to support the teaching programme. These included a studio for audio and video recording and editing as well as a mini-computer for developing print materials.

STUDENT SERVICE PROFILE

The primary goal of the BIDE programme, to provide professional training to secondary school teachers, was furthered through the following facilities and services:

- BIDE prepared books on different subjects and supplied them to the students at a subsidised rate.
- BIDE prepared a limited number of audio and video cassettes for student use.
- BIDE provided guidance services by personal contact, and through telephone, radio, television, and newspaper media.
- Ten teacher training colleges and the NAEM provided tutorial services.

ISSUES AND PROBLEMS

Utilisation of Services

BIDE utilised the facilities and services of the teacher training colleges and NAEM. As these institutions provided full-time services to their regular programme students, the students of the distance education course could not derive full benefit from the teaching staff and other facilities.

Attrition

Supervision of teaching practicals was not adequate and this contributed to attrition.

Technology

Technological equipment and properly trained staff were lacking.

Funding

The Bachelor of Education course was financed primarily from student tuition fees. Government provided a very limited amount of funding. However, income was not adequate to provide all possible facilities.
A VIEW TO THE FUTURE

During the 1985–87, 1986–88, and 1987–89 sessions, BIDE enrolled 10,281 candidates, of whom 7,313 completed the Bachelor of Education course. The results were published within a month of completing the examination and students received diplomas within six months of the publication of results. These are noteworthy achievements in view of the usual sessional “log jam”.

The success achieved by the BIDE has prompted interest among government decision makers. Recently, the government of Bangladesh, with the financial assistance of the Asian Development Bank, established Bangladesh Open University near Dhaka city. The government has decided to merge the Bangladesh Institute of Distance Education with Bangladesh Open University. The vice-chancellor will work as project director to develop the infrastructure and academic departments. Within five years the university will take complete shape.
INDONESIAN OPEN LEARNING UNIVERSITY

M.G. Sembiring

INSTITUTIONAL PROFILE

The Indonesian Open Learning University (Universitas Terbuka) came into operation in 1984 with the following goals:

- to provide educational opportunities to students who cannot take advantage of traditional higher education programmes;
- to achieve equal access to higher education for a large segment of the population, including older, employed people who wish to upgrade their education, as well as those living in remote areas; and
- to be flexible in eligibility for enrolment, age of entry, choice of programme, method of study, conduct of examinations, and general programme operation.

The Universitas Terbuka is a state university based on a distance education design. The system relies mainly on a multimedia approach instead of face-to-face instruction as practised in the traditional universities. This multimedia approach consists of printed and recorded materials presented in modules, textbooks, audio cassettes, and videotapes, as well as tutorials. At the same time, the system provides flexibility to students in choosing and deciding when they wish to register, study, and undertake examinations.

The academic programmes the university offers consist of certificate, diploma, and sarjana programmes in three categories: non-educational, educational, and Akta programmes. The non-educational programme is carried out by three faculties: economics, social science and politics, and mathematics and natural science. The educational programme, offered by the Faculty of Education and Teacher Training, is devoted to skill upgrading for primary and secondary school teachers. The Akta programme provides professional development to teachers. The Faculty of Education and Teacher Training is responsible for carrying out the Akta programme.

These four faculties have full-time academic staff who are responsible for developing curriculum, reviewing course material, writing audio and video scripts, giving tutorials, and analysing examinations. In addition, the university’s administrative staff are in charge of activities such as keeping student records, distributing study materials, and administering examinations.

Currently approximately 100,000 students are registered. The university is expecting about 400,000 more students within the next five years. The vast majority of students are working people. All students registered in the Faculty of Education and Teacher Training must be practising teachers, either in primary or secondary schools. The non-educational programme is available to anyone, provided they have a high school certificate.

The Universitas Terbuka functions from its main office in Jakarta, the capital city of the Republic of Indonesia. From there a network of 32 regional centres (also known as learning resource centres) spread throughout the country’s 27 provinces. The regional
centres are located in provincial universities or teacher training institutions, and can therefore make use of existing facilities. Furthermore, the regional centres are the contact point between the university and its students.

**STUDENT SERVICE PROFILE**

Broadly speaking, the regional centres provide academic, administrative, and counselling services. The centres are coordinated by a director, with the help of administrative and academic staff. These services are aimed at offering all possible assistance to students during their studies.

The organisational structure at the regional level can be divided into the following levels: the Director of Regional centre (level one), the Head of Academic Programmes (level two), the Head of General Administration (level three), and Academic and Administrative staff (level four). Most level one and level two personnel in the regional centres are part-time staff; all personnel at levels three and four are full-time staff. The level one and level two staff are normally hired from the local state university at the provincial level.

Educational facilities and library resources are limited. Regional centres do not provide the use of sophisticated equipment or technological applications such as computers or audiovisual equipment and mini-libraries to their students. Instead, the regional centres offer tutorials and advice, and they facilitate the formation of study groups. As well, they promote extracurricular activities for students.

Despite the university's multimedia approach to instruction, modular printed material is the predominant medium of instruction. The modules, in a self-instructional format, are produced by the university and provided to students. The university also uses the national television network (TVRI) and the national radio station (RRI) to deliver instruction, although to a limited extent.

Two tutorial models are employed at the Universitas Terbuka: face-to-face and written tutorials. Face-to-face tutorials are usually conducted at the regional centres by tutors hired from local state universities, using local facilities as venues for class tutorials. Previously, the regional centres provided two free tutorials every semester. However the number of tutorials given, both face-to-face and written, is very limited. In some regions, the university provides written tutorials via local newspapers. This service seems to be most effective and efficient. Academic staff from the main office and regional centres publish articles related to the courses, as well as administrative and counselling services (written tutorials are also offered through the main office). The academic staff are responsible for answering academic enquiries from the students.

Apart from the two tutorial services, the university also asks the regional centres to facilitate study groups and extracurricular student activities. Although these activities do not directly contribute to student performance, they are seen as one way to avoid a feeling of isolation among students.
ISSUES, PROBLEMS, AND PROPOSALS

In a distance education system, learning must occur despite constraints. Learning, moreover, is primarily in the hands of the student rather than the shared responsibility of both teacher and student (Moore 1983). Therefore the student must make every effort to learn. In Indonesia, distance education students are mostly adult learners; and they turn to distance education as a second opportunity to return to school after being away for some time. Adult learners in distance education are usually highly motivated and see themselves as independent (Robinson 1981). In most cases, adults believe they are capable of self-direction. In general, they are willing to be self-directed in their learning. Furthermore, they usually have a very clear objective. They learn, therefore, in a manner and at a pace that suits them, since they control their own learning situation and aspirations. This high level of enthusiasm must be maintained by the distance education institution by providing appropriate support mechanisms.

The Universitas Terbuka, as a distance education institution, actually established its systems in order to encourage students to be active, self-directed, and independent. From the beginning, the university has given students the freedom to study on their own and has held them responsible for their own learning; that is, students are responsible for building their skills and knowledge, and for converting the information acquired into something meaningful. The university has played the role of a support agency which provides services, facilities, information, and mechanisms that support the learning process (Pannen 1991).

The premises of Moore and Robinson, however, are not always fully applicable, especially in Indonesia. Most Indonesians do not have the tradition of individual and independent learning. They are used to rote learning and to the face-to-face classroom method. They depend highly on the teacher as the sole reliable source of knowledge and information. Pannen (1991), moreover, recognises that those who have such habits are less likely to have the skills they need to study alone and independently. They need a great deal of help. Sewart (1981) points out that distance education institutions usually rely on attractive printed self-study materials, often supplemented with audiovisual materials. This implies that less consideration is given to individual needs through such packages and institutions. In fact, well-designed self-study materials cannot provide individualised learning. Having considered all of this, it is clear that services the university offers through its regional centres are very limited. Although in theory the university should offer and provide academic, administrative, and counselling services simultaneously, it is recognised that only administrative services are relatively well-organised throughout its operations.

In terms of academic and counselling services, several things need to be addressed. There are no standard tutorials (face-to-face and written) given to the students on a nationally organised basis. Hence, one observes certain trends taking place in Indonesia such as the establishment of Universitas Terbuka Student study centres (PSM) and Student Study Groups (KBM). Basically, they are regular lectures provided by a private institution to the students for a fee. This kind of service has benefited university students who have the money to pay for the service, as well as students who come directly from high school, who are usually very dependent and used to rote learning. Still some students are left behind because of their socioeconomic situation, or because of distance and technological constraints. But the university cannot afford to provide instructional media such as audiovisual sets and library resources at every regional centre. Nor can it offer tutorials using sophisticated telecommunication equipment.
These constraints are due to economic reasons and the lack of technological support from other institutions. Consequently, in its future development, the university will focus on involving other resources available at the regional level. These include improved partnerships with local governments and other private institutions in order to provide better services to students. At the same time, the university is looking at providing services that do not rely heavily on the use of sophisticated technology. In other words, the university is developing tools for linking students and the university through the postal service and with more face-to-face interaction. At first glance, this development seems to be less effective in terms of time as well as contradictory to the concept of distance education.

The university, with the help of funding and technical assistance from the Canadian International Development Agency (CIDA Canada), is currently implementing a pilot project in six sites which seeks to establish a model for regional centres and their services. The mission statement for regional centres will be:

To provide standardised academic and other support to students through a decentralised network of full-service Learning Resource Centres and Learning Resource Posts, in cooperation with partner institutions where possible and appropriate. The Learning Resource Centre network will also serve to provide visibility for the University at the regional level throughout Indonesia.

The aim of the pilot project is also “to improve academic and non-academic student support services delivered regionally and to standardise these services throughout the Learning Resource Centre network”. The full-service learning resource centres will administer all academic and other student support activities throughout their respective regions and will also provide services offered through the learning resource posts in each region. The learning resource posts will be implementing learning resource functions in the satellite areas. The first priority will be to standardise tutorials and to acquire improved facilities at the regional level. This will be the major responsibility of each learning resource centre director. The next priority is to increase the quality of services for registration and examinations.

The pilot project will focus at this stage only on non-traditional students. Eventually, the model will be applied to all students. The tutorials that are currently being offered in the regions are based on partnerships with private sector organisations and local governments, using the tutorial staff and facilities of those institutions. The learning resource centres (that is, the regional centres) will organise the tutorials at those institutions and students will pay for each tutorial they attend. In addition to this development, the university will also provide students with a student handbook and study skills handbook. Tutors will also be given a tutor orientation guide.

In terms of providing academic student support services, the learning resource centres will be responsible for:

- providing face-to-face tutorials;
- developing agreements with local newspapers to publish written tutorials and student administrative information;
- identifying and recommending potential partnerships with other institutions to provide tutorials and referring these to the rector;
- providing appropriate instructional media for student use;
• encouraging and facilitating the organisation of study groups; and
• evaluating academic support activities.

As for non-academic support, the learning resource centres will provide group information and orientation sessions to prospective students and visitors. Academic advising services are also offered at this level. The administrative functions of the learning resource centres include processing registrations and student records, storing and distributing learning materials, coordinating, marking, and administering examinations, and posting and distributing final examination grades. In addition to the development of partnerships, promotion, and communication, the learning resource centre directors are expected to take new initiatives and report them to the main office, via the rector.

Delivery of services in the learning resource posts will consist of:

• monitoring the number and quality of tutorials;
• appointing tutors for the learning resource posts on advice from the learning resource centres staff;
• directing examination coordination and take-home exams at the post level; and
• supervising staff in the posts.

In terms of personnel, it is realised that staff at levels one and two are less available because they are mostly part-time staff. Local state universities act as the parent universities, so someone at a senior level must be employed full time. Therefore, it is suggested that every regional centre have an academic advisor, acting as a generalist at the regional level. This would be a full-time academic or administrative staff person in the regional centres at level four, giving continuity of service to students. The academic background of the academic advisor would be at a level sufficient to respond to academic enquiries from students.

CONCLUDING REMARKS

It is obvious that within the next two years significant changes will take place in student support services at the Indonesian Open Learning University. It is expected that these changes will improve the entire operation of the university and students will be served better than before. Furthermore, it is expected that students will increase not only in number but also in quality. Specifically, it is hoped the quality of students learning via distance education will be the same as those attending conventional universities. At the same time, however, some of the new developments planned for the university seem to contradict the principles underlying pure distance education systems. For example, students will have to pay more than a tuition fee; that is, they will have to pay tutorial fees. As a result, we appear headed towards more of a classroom instruction system, but perhaps only as transition to a truly independent open learning system.
Natee Khlibtong

INSTITUTIONAL PROFILE

Sukhothai Thammathirat Open university (STOU) is structured along lines similar to the United Kingdom Open University. Curriculum development especially reflects a number of the Open University’s operating principles and practices. The curriculum content is arranged into self-study packages that integrate related material and activities into sets known as “course blocks”. A course block is worth at least six university credits and is divided into fifteen units, each of which requires approximately twelve hours of study per week. The university offers three programmes:

- four-year bachelor’s degree programme;
- two- and three-year bachelor’s degree programmes; and
- one- and two-year certificate of achievement programmes.

STOU courses are developed by course teams of three to five subject specialists. A team comprises a chairperson, an editor, an educational technologist, and an evaluation specialist. The instructional staff is modest in relation to the 180,000 students currently enrolled with the university. In 1990 there were only 1,099 officials, including 377 support staff. Additionally, approximately 3,000 part-time staff serve as course team members, authors, tutors, and examiners.

In order to fully discharge its responsibilities, the office of educational services is divided into sections, each with its own function. These include: the Centre for Correspondence Studies with the primary responsibility of course materials development and delivery; and the Regional Affairs and Counselling sections, both responsible for general student support services.

The rapid dissemination of educational media — textbooks and workbooks, audio tapes, and other supplementary materials — is necessary in order for the STOU distance education system to operate efficiently. The Centre for Correspondence Studies is responsible for the efficient mailing of these materials to students and those involved in university projects. As well, they provide other postal services, including mailing government documents to various agencies concerned with the university.

Self-Study Material

Self-study material used at STOU includes textbooks, workbooks, and audio tapes. Course textbooks provide the basis for learning. Study methods and teaching plans for the different units are provided. Supplementary textbook material is arranged in programmed lessons so that students must study every unit of the textbook in detail as well as complete the exercises laid down in each unit. Workbooks contain instructions on how they are to be used, details of the teaching units, and self-evaluation before and
after studying, as well as space for notes and for doing exercises and reports. The workbooks also include forms of tests for each unit. In addition the university produces audio tapes for some courses in the form of lectures and discussions, as well as in other formats. These tapes do not duplicate radio programmes produced for the same courses. Details of these cassette tapes, which students can purchase, are published in the university’s newsletter, STOU News. In addition, the university arranges for books and supplementary reading materials to be placed in study centres in various provinces, called “STOU Corners”.

Educational Radio and Television Programmes

STOU provides educational services in the distance teaching system through the use of correspondence media and radio television broadcasts. Each semester, STOU produces fifteen to seventeen 20-minute radio programmes in a variety of formats such as interviews, documentaries, drama, and docudrama. The content of each programme is designed to enrich course blocks. STOU radio programmes are broadcast daily through the public relations department’s radio network. STOU uses television to supplement its academic courses. For each academic course three 30-minute educational television programmes are produced in various presentation formats. STOU sends tapes of the programmes to local stations all over the country for broadcast. To disseminate knowledge and to provide academic services to the general public, STOU has developed the radio and television programmes “Academic Programme” and “Academic Service”. These use a documentary style and STOU benefits from these programmes.

Library and Educational Media Services

The university is well aware of the importance of library and educational media services to support independent study by students as well as to provide resource materials to faculty members, course design teams, tutors, other university personnel, and the general public who seek lifelong education. Accordingly, a library system has been established to take the direct responsibility for providing basic library services as well as educational media services. Library and educational media services provided by the office of documentation and information for the benefit of STOU’s target group are comprised of central services, provincial services, and regional services. Central services and library and educational media services are provided for full-time academic staff. A special building at the university houses the central library and has the responsibility to acquire books and educational materials according to the needs of the university.

STUDENT SUPPORT SERVICES

The university’s Centre for Regional Affairs assists students who have problems understanding the course material and helps increase their knowledge and understanding. This student support service consists of tutorials, student activities, academic guidance, and media services such as videotapes as a substitute for tutorials, professional and practical training programmes, and field and laboratory work. All these activities are conducted at the study centres located in the provinces with the cooperation of various educational institutions and agencies. There are three types of study centre: study centres; provincial or local study centres; and special purpose centres. The latter include the STOU Corners that are located in libraries and other specialised and practical study centres. These organisational structures and their twin functions of counselling and tutoring are outlined below.
Counselling

The counselling section of the Office of Educational Services serves a very important role in helping students to quickly grasp the system of education that the university uses. The counselling section also gives advice on the selection of study areas, studying the different courses, vocational guidance, and personal problems. In addition, the counselling section provides orientation to newly enrolled students through various media such as radio and television broadcasts, the STOU News newsletter, and orientation pamphlets. It also provides telephone and mail guidance services, is responsible for the supervision of STOU student clubs throughout the country, and conducts territorial defence courses for STOU students.

Tutoring

Tutorials constitute one of the academic services that the university arranges to benefit students. Through tutorials, academic staff provide knowledge enrichment, a wider and deeper understanding of the content of course blocks which students study on their own. Tutorials also help clarify problems students may have with the teaching materials they are studying. The objectives of the tutorial function are:

- to serve as an academic liaison between students and the university;
- to create a link between tutorials and other teaching materials;
- to assist students in increasing their knowledge and understanding of the academic content of the courses they are studying;
- to understand the problems students experience while studying by themselves so that approaches and methods of solving them in the future problems can be worked out; and
- to provide students with an opportunity to receive academic guidance and counselling from university personnel.

The university arranges tutorials to ensure that they are of the greatest benefit to students. Tutorials are conducted on weekends in local study centres throughout the country, and they are generally given twice. Where it is considered necessary, three meetings are arranged, each lasting three hours. Academic staff from the university are sent, on a rotation basis, to all study centres. There they give counselling and guidance to students for 15 to 60 minutes before tutorials begin.

STUDY CENTRES

To provide students in every region of the country with education services, the university has, with the cooperation of local institutions and other government agencies, set up study centres. Study centres are of three types, each with its own responsibilities: regional centres, local study centres, and special study centres.

The responsibilities of the regional centres include:

- arranging tutorials and assist in selecting tutors from that region;
- arranging examination facilities;
• providing students with guidance and counselling services; and
• providing public relations and news services for the university.

The responsibilities of the local study centres include:

• arranging venues that the university can use for specific activities such as student orientation, tutorials, examinations, counselling, and other supplementary learning activities that the university considers appropriate and beneficial to students; and
• providing public relations and university news at a local level as well as acting as a centre of liaison between students and the university in cases where students are unable to contact the university directly.

The responsibilities of the special study centres include:

• providing students of a particular school of study with academic counselling and guidance, laboratory training, and field work in specific areas; and
• identifying experts in specific subjects and proposing them to the university as potential tutors.

The university requests the cooperation of government departments that administer the area the schools of study are teaching. For example, the School of Agricultural Extension and Cooperatives has established a study centre at regional agricultural stations and the School of Health Science has established study centres in hospitals.

Regional Services

Student support services are also offered through STOU Corners, which are located in 72 provincial public libraries through the cooperation of the Department of Non-formal Education, Ministry of Education. Two other STOU Corners have been established in city libraries — the Lumbini Park Public Library and the Soi Phra Nang Public Library — through the cooperation of the Bangkok Metropolitan Administration. Similar services are provided in Bang Khwang Central Prison at Nonthaburi. STOU Corners act as a repository and service centre for different types of educational media as a service to students and the general public in local areas. Educational media include teaching and exercise materials prepared by the university for use with different subjects, as well as textbooks, reference books, and books on specific subjects that are of interest to the people who live in that area. As well, audio cassettes of course material, radio programmes, tutorials, and educational counselling are offered.

Other regional services will be provided at the ten area resource centres the university plans to establish throughout the country in accordance with the objectives of the Sixth National Economic and Social Development Plan. Each resource centre will aim to be a storehouse of various up-to-date educational media. Of particular interest are audiovisual materials and computer-assisted instruction. The resource centres will also provide public relations information and news about the university, and educational and vocational counselling services. Other duties will include coordinating educational services, as well as organising mobile educational media services to remote areas. Students and interested members of the public will be able to use these services for independent study.
Public Relations News Service

STOU develops positive public relations through a monthly newsletter, as well as radio and television programmes. The newsletter, *STOU News*, provides general university news and more specific information about work activities that students should know.

The radio and television programmes include “STOU Time”, which gives students and the general public throughout the country news of developments taking place in the university. “Meet the President” is a radio programme of information and news on STOU and open universities in general. The “STOU News Spot” is a television news spot broadcast daily to give students and the general public news of the university’s activities.

The university also publishes a booklet, *Educational Television Programmes*, which gives the broadcast times of STOU’s educational programmes. It is distributed to students all over the country.

PROBLEMS AND ISSUES IN STUDENT SUPPORT SERVICES

Problems and possible solutions were identified from an analysis of documents and a survey of students at STOU. The results of the study indicate three main problems:

- tutoring problems;
- mailing problems; and
- student socialisation problems.

Tutoring Problems

The main problem with the tutoring service is that two-thirds of students did not attend the tutorial sessions. Most of those not attending live in small communities and face difficulty travelling. However, others found the subject matter easy enough to understand, without the help of a tutorial.

The students who did attend the tutorial sessions complained that the tutoring programme was difficult to understand because of the very short time given each subject.

In order to make the tutorial sessions more meaningful for students, the university should deposit videotape recordings of the tutorials at both the regional centres and STOU Corners. Students who are unable to attend the tutorial sessions can view the videotapes at their convenience. But the videotapes must be of the best quality. Another way to improve attendance at tutorial sessions is to discuss the content of each tutorial session in the university newsletter, because it is the most effective means of conveying information to students about tutoring.

Mailing Problems

Students should receive printed study materials at least 15 days before the beginning of each semester. However, numerous obstacles exist. Each mail truck line has a limited capacity, with only 23 mail truck lines in all of Thailand. Because the post office has a limited number of trucks to carry the mail, the university is limited in the amount of mail it can send each day. Then, in some areas, the number of students enrolled is low, while
in others, students are numerous. This leads to some mail trucks loading too much mail, while others run nearly empty. In addition to the mail truck problem students register at different times so it is difficult to manage a delivery plan. Finally, some students change addresses, which complicates the problem of delivering their mail.

One possible solution to these difficulties with the mail is to deposit printed study materials at specified bookstores around the country, where students can claim them at their convenience after registration.

Student Socialisation

STOU students have organised student clubs to help each other academically and socially and to promote public relations. The clubs establish good relations between STOU and its students, as well as good relations among students. They also build the university’s academic status and general reputation.

The counselling section is responsible for the activities of about 73 student clubs throughout the country, involving about 150,000 students. Unfortunately, the club head office has only 11 counsellors. That number is insufficient to deal with the problem of a lack of cohesion within the student clubs. It stems, in part, from the fact that club committee members have little time and funding to fulfil their obligations to members. In fact, some of the student clubs no longer function.

To improve opportunities for students to socialise, the university should promote more face-to-face contact among students by supporting student club activities.
SUMMARY OF SYMPOSIUM
ANALYSES OF CASE STUDIES

R. Sweet

The concerns expressed at the Delhi Symposium are summarised below in the form of problem statements. These issues and the suggested means of addressing them combine the views of all participants towards the task of developing more responsive student support systems. In their focus on the change that is taking place in the kinds of instruction needed and its implications for the organisation and operation of student support services, the participants’ analyses reflected the assumption that movement towards more responsive support systems begins with an understanding of student characteristics and their learning needs. Nevertheless, problems reported at the Delhi Symposium were not limited to the areas of instruction and counselling. A range of administrative restrictions and the often constraining influence of institutional and government policies were raised in discussion. Many of these concerns were unique to a particular institution and reflected local conditions, customs, and practices. Other reported problems reflected variation in the stages of programme development with rather significant differences existing among institutions and between countries. However, some issues emerged as common themes in most if not all reports. These included the difficulty in identifying indicators of the effectiveness of a programme using proximate and outcome indicators such as the poor use of services and high levels of student attrition. Other matters of concern were the current level of staff development, with deficits seen in both instruction and management. Both deficits were linked to attrition rates and problems with the programmes themselves. Finally, the difficulty of projecting the “distance education concept” to the general public and to educators from more traditional institutions was raised as a problem. These concerns, along with others arising from the participants’ analyses, are addressed in the following four questions, which outline the major policy issues and options considered at the Delhi Symposium.

How to increase funding?

One of the difficulties faced by government-funded institutions are state policies of fiscal restraint. Such policies seem to be general and their effects pervasive. Institutions typically attempt to cut back on their costs in every way possible. Unfortunately, student support services often are the first to feel the institution’s response to a shortage of funding. Retrenchment is not, however, the only response. The example of the Sukhothai Thammathirat Open University in Thailand is instructive. Thai government funding is minimal and the institution’s operating costs are met through entrepreneurial activities such as contracting to publish advertising material for businesses. Another example is provided by Universitas Terbuka in Indonesia, which has opted for a measure of privatisation in its support service operations. Whether viewed as institutional innovation or privatisation, the range of response among universities clearly must be broadened in an economic climate of restraint that appears to be a permanent feature of future relations between governments and postsecondary institutions.
How to target training?

Two areas in need of professional development programming are instructional interactions at the study centres and the general management of materials development and delivery. Professional development for faculty needs to be directed towards instructional techniques that encourage students to participate and engage in an intellectual exchange with the instructor, their peers and, of course, the material under study. Many such strategies are possible but they require a shift in the instructor’s perception of his or her role in facilitating student learning. Educating faculty thus requires a programme that reshapes their underlying conceptions of useful instructional models in addition to adding techniques to their teaching repertoire. For support service staff, two areas appear to need improvement. The first is essentially attitudinal and relates to the understanding staff have of the differences between the traditional schooling they experienced and the open and distance education they attempt to provide. Where the mandate of the institution is improved accessibility, “non-traditional” students — typically mature individuals with work and family commitments — comprise a significant proportion of enrolments. As part-time students, they are the primary consumers of the institution’s products and services. The relations between students and the staff who directly interact with them through registration, course delivery, evaluation, and the like must necessarily be cordial and encouraging for the system to work effectively. The notion of the student as consumer rather than recipient of the institution’s service may be a useful perspective in improving the institutional face presented to prospective students. Second, the logistical problems of course delivery, marking, and feedback would likely be improved with training in a more innovative means of distribution. Even training within accepted and traditional forms of management would enhance efficiency and productivity. An important dimension of this problem involves the introduction of technology. While not widely discussed in the case studies, technology is identified as a particularly important area of instructional and administrative development in the research recommendations of symposium participants.

How to further institutional collaboration?

Collaboration is important at two levels: among distance education universities themselves, and between distance education universities and the other institutions within a country’s postsecondary system. Since they share much the same mandate and many common management practices, distance education universities can benefit from the exchange of resources. There exist a number of examples of course material exchanges, transfer of expertise, and a rationalisation of services among institutions. Collaboration can occur to good effect at the country and (South Asian) regional levels. However, regional collaboration would require a degree of experimentation and development. Underlying such a collaborative effort is the need to make known the mandate of the open learning institution and to promote better understanding of the complementary relationship that exists between traditional and distance teaching universities — within each country and within the region.

How to maintain and expand direct student support services?

Much of the discussion surrounding the case studies considered increased involvement of support service personnel in the instructional process. At the same time, it was recognised that the established student support mandate could not be neglected and in some cases needed expansion. The range of services required is well known and includes improved mechanisms for student loans, increased opportunity for socialisation
among students, and advocacy for the disadvantaged. Socialisation leads to the very necessary informal learning acquired through communication with one's peers. As well, it leads to institutional commitment, which has been linked to greater course and programme persistence.

Targeting resources for aiding disadvantaged groups is difficult. However, strategies need to be developed that will have the greatest impact on general attitudes and behaviour. It is quite possible that promoting the voice of one disadvantaged group can further improve the lot of another; at least, it improves to the extent that the target group is inclined to be inclusive in its pursuit of equity. If nothing else, the gains of one disadvantaged group sensitises the public and the educational bureaucracy to broader issues of access and equity. But there exists a continuing need to develop general policies and action plans in the area of direct student support and advocacy.

**Recommended Research Directions**

A number of research priorities were identified by participants at the Delhi Symposium. These are listed below. Each emphasises the regional context and does not pursue findings that can be highly generalised. At this point, they are initial statements of research that need further development. They do, however, reflect the combined concerns of the participants and suggest some specific direction for future research and development.

- Explore the feasibility of engaging in various entrepreneurial activities.
- Assess the potential for introducing computer networking among universities within countries across the region. Computer networks would allow international links to be established through, for example, the Internet system.
- Develop models of institutional collaboration.
- Improve instructional materials, especially in the packaging and delivery of such items as home science kits and mobile instructional resource units.
- Analyse policies that affect equity groups.
- Analyse governance structures suitable to distance education institutions (as an alternative to traditional structures currently "imposed" on most distance education universities).
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