Campus-based and Distance Education

Higher education has traditionally been conceived as an arrangement whereby students attend particular institutions for the purposes of receiving teaching through immediate contact with the members of academic staff and support in their learning from libraries and other services. There is unfortunately no convenient expression to refer to this means of delivering higher education. Kaye and Rumble (1982: 242) used the term 'conventional' to refer to 'formal classroom-based instruction in a school, college or university setting where teacher and students are physically present at the same time at the same place'. This is far from satisfactory, because it carries the implication that the teachers and institutions being referred to are not open to change, and it is an easy matter to find counterexamples to this idea (see, for instance, Gibbs 1992, 1994, 1995).

Some writers have used the phrase 'contiguous education', in the sense of being adjacent to, in close proximity to or in actual contact (see Rumble 1989), but this is an ugly expression that fails to capture the wide range of activities that go on in institutions of higher education. It also begs the question: 'contiguous to what?' If it means 'contiguous to the teacher', the students in question are often required to work by themselves or in small groups without any immediate supervision. If it means 'contiguous to the institution', they might also be required to carry out fieldwork or research elsewhere. In this book, I shall use the phrase 'campus-based education' instead, in the sense that the teaching and learning activities originate within the grounds of the institution in question. (I recognize, of course, that institutions in deprived city-centre locations might hesitate to describe their setting as a 'campus', given the mental images that this evokes.)

Many alternative means of delivering higher education have been proposed, and many of these have been implemented to a greater or lesser extent at different times and in different countries. Nevertheless, I am going to be concerned in this book specifically with the idea of 'distance education' and with comparing how students set about their academic studies in campus-based and distance-learning institutions of higher education.
Unfortunately, the definition of ‘distance education’ is not entirely straightforward. I therefore need to spend this introductory chapter considering what ‘distance education’ involves and how it relates to a number of other concepts discussed in the contemporary literature on teaching and learning in higher education, such as ‘open learning’, ‘independent learning’ and ‘flexible learning’.

Distance education

One early definition of ‘distance teaching’ was put forward by Moore (1973):

Distance teaching may be defined as the family of instructional methods in which the teaching behaviors are executed apart from the learning behaviors, including those that in a contiguous situation would be performed in the learner’s presence, so that communication between the teacher and the learner must be facilitated by print, electronics, mechanical or other devices.

(Moore 1973: 664)

Of course, this definition focuses on the activities of the teacher in distance education and it largely leaves out the learner’s side of the relationship (Keegan 1988, 1996: 37). It also implies a somewhat narrow conception of campus-based education, as it equates contiguous teaching with face-to-face instruction. Even so, it does serve to highlight the key element of a physical or geographical separation between teachers and students: whatever else it is, distance education is based upon ‘non-contiguous’ communication (Holmberg 1981: 11).

The physical separation between teachers and students in distance education often also implies a separation in time: that is, their communication is ‘asynchronous’ (see Threlkeld and Brzoska 1994). At a more fundamental level, the separation is often not simply geographical or temporal in nature, but social and personal as well (Keegan 1990). To capture these different aspects of the relationship between teachers and learners in distance education, Moore (1980, 1983) used the term ‘transactional distance’, which he defined as a function of two variables, ‘dialogue’ and ‘structure’:

Dialogue describes the extent to which, in any educational programme, learner and educator are able to respond to each other. This is determined by the content or subject matter which is studied, by the educational philosophy of the educator, by the personalities of educator and learner, and by environmental factors, the most important of which is the medium of communication . . .

Structure is a measure of an educational programme’s responsiveness to learners’ individual needs. It expresses the extent to which educational objectives, teaching strategies and evaluation methods are prepared
for, or can be adapted to, the objectives, strategies and evaluation methods of the learner.

(Moore 1983: 157)

In fact, many institutions running programmes by distance education exploit different devices to try to narrow the transactional distance between the teachers and the students. These include tutorials or self-help groups arranged on a local basis, induction courses and residential schools, audio teleconferencing or computer conferencing, and other forms of personal support. Saba (1988) showed how Moore's notion of transactional distance could be elaborated in order to accommodate the new forms of telecommunications technology that were being adopted in distance education. In particular, Moore (1994) himself argued that these forms of technology could be employed to harness the 'interdependence' of geographically separated students through self-help groups. Since the early 1980s, there have been many experiments to investigate the possibility of collaborative learning and teaching using new technology, and the Internet has been exploited as a channel for both course delivery and student support in many programmes.

In general, as Moore's (1973) original definition of 'distance teaching' implied, and as Garrison and Shale (1987) subsequently made explicit, learning at a distance will still necessitate some kind of communication between teachers and students, and institutions responsible for distance education will exploit whatever technology is available to facilitate that communication. It is, for example, possible for teachers and learners who are physically separated from each other to interact in a simultaneous or 'synchronous' manner by means of modern telecommunications technologies. It therefore may be useful to distinguish between distance education that is based on traditional correspondence techniques (possibly supplemented by material recorded on audio or video cassettes) and distance education that is based on telecommunications that permit a simultaneous link between the teachers and the students (Barker et al. 1989). Such technologies can also, of course, be used to facilitate links among the students themselves (Keegan 1988).

To deal with these and other issues, Keegan (1988, 1996) presented an elaborated definition. On this account, distance education is a form of education that is characterized by:

- the quasi-permanent separation of teacher and learner throughout the length of the learning process (this distinguishes it from conventional face-to-face education);
- the influence of an educational organization both in the planning and preparation of learning materials and in the provision of student support services (this distinguishes it from private study and teach-yourself programmes);
- the use of technical media - print, audio, video or computer - to unite teacher and learner and carry the content of the course;
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- the provision of two-way communication so that the student may benefit from or even initiate dialogue (this distinguishes it from other uses of technology in education); and
- the quasi-permanent absence of the learning group throughout the length of the learning process so that people are usually taught as individuals rather than in groups, with the possibility of occasional meetings, either face-to-face or by electronic means, for both didactic and socialization purposes.

(Keegan 1996: 50)

At the same time, it is fair to question precisely how ‘contiguous’ campus-based programmes of study really are. Although students are normally expected to attend at a physical institution for access to teaching and learning facilities, they are also usually expected to engage in periods of independent study. Indeed, in the humanities and social sciences it is common for students to spend the majority of their notional learning time in activities other than face-to-face education. Many of these activities need not take place on campus, especially if students live elsewhere. In practice, then, as Rumble (1989) pointed out, educational programmes lie along a continuum from the highly contiguous to the purely distance-based. Even so, at a purely conceptual level, the distinction between campus-based and distance education is relatively unambiguous. To try to accommodate these various points, Bell and Tight proposed a more general definition:

‘Distance education’ refers to those forms of organized learning which are based on, and seek to overcome, the physical separation of learners and those (other than the learners themselves) involved in the organization of their learning. This separation may apply to the whole learning process or only to certain stages or elements of it. Some face-to-face contact may occur, but its function will be to supplement or reinforce the predominantly distant interaction . . .

(Bell and Tight 1993: 7–8)

Two models of distance education

At an institutional level, a wide variety of arrangements have been adopted for the delivery of distance education in different countries (see Keegan and Rumble 1982). Nevertheless, one can make a basic distinction between two different models (see Mugridge 1992). In the ‘dual-mode’ model, the same courses are delivered to campus-based students and distance-learning students by the same departments within the same institution. In this case, the intention is to replicate the experiences of campus-based students as far as possible within the context of distance learning, in order to ensure uniformity of educational provision, parity of academic standards and parity of external status between the two forms of course delivery. This model is
exemplified in the Australian system of higher education, for instance, where
certain academic institutions have a constitutional responsibility to provide
courses both in an 'internal' or campus-based mode and in an 'external' or
distance-learning mode. The relevant lectures and tutorials are replaced
by written course materials and teleconferences, but distance-learning stu-
dents are usually subject to the same assessments and academic schedules as
campus-based students (see Arger 1993).

The disadvantage of a system such as that which pertains in Australia is
that distance-learning students usually constitute the minority, not only across
the system of higher education as a whole, but also within most individual
institutions of higher education. For example, external students constitute
merely 10.6 per cent of all enrolments and only 8.6 per cent of all graduates
at Australian institutions, and more than half of all external courses are
taken by fewer than ten students (see Department of Employment, Edu-
cation and Training 1993; Johnson et al. 1996). Consequently, distance
education is of relatively minor importance in the allocation of resources
to individual institutions, and teaching external students may come to be
regarded as a peripheral and inferior responsibility, even by those members
of academic staff who are actually involved in delivering their courses (see

The other model for delivering higher education through distance learn-
ing is the 'single mode' model: this model is based on a distinct organiza-
tion that has no involvement in the delivery of campus-based courses. The
organization in question might be a separate institution of higher education
that is responsible for its own academic programmes and awards or it might
be a separate faculty within a campus-based institution of higher education.
It is fairly common for the form of education that is being provided to be
described as 'open learning', as in the case of the Open Universities of the
UK, the Netherlands, British Columbia, India and Pakistan. (Under this
heading, one might also include the Open Education Faculty of Anadolu
University in Turkey, although this is strictly a dual-mode institution that
comprises 15,000 campus-based students but more than 500,000 distance-
learning students.)

Consider, by way of example, the Open University in the UK. This was
founded in 1969 to provide degree programmes by distance education
throughout the UK. Originally, nearly all its courses were delivered by
specially prepared correspondence materials, combined with television and
radio broadcasts, video and audio recordings, tutorial support at a local level
and (in some cases) week-long residential schools. Nevertheless, the Open
University has made increasing use of computer-based support, including
CD-ROMs and computer-mediated conferencing. It accepts all applicants
over the normal minimum age of 18 onto its courses without imposing any
formal entrance requirements, subject only to limitations of numbers on
specific courses. Most courses are assessed by a combination of coursework
(submitted by post or in some cases by electronic mail) and traditional
unseen examinations (taken at regional assessment centres).
Within the single-mode model, the delivery of distance education is the central responsibility (indeed, the raison d'être) of the institution in question, and so there is no question of its being assigned a prime importance. However, the main disadvantage is that it may be difficult for the institution to attain parity of status and to demonstrate parity of academic standards with other, campus-based institutions of higher education. This will be a particular problem if the distance-learning institution is perceived to be offering courses in innovative (and hence non-traditional) ways to students who might not meet the standard admissions requirements of campus-based institutions. In the UK, the introduction of a national system for the assessment of teaching quality in higher education has, whatever its demerits, served to remedy this problem, in so far as the Open University regularly receives extremely positive assessments from panels of external assessors for the quality of its provision in different academic disciplines.

From the perspective of a researcher, the advantage in considering the dual-mode model is that it is possible to compare campus-based students and distance-learning students who are taking the same courses and are subject to the same assessments and academic schedules. In contrast, when examining the impact of a single-mode model on student learning, it may well be difficult or impossible to find an appropriate group of students taking campus-based courses with whom it would be sensible to compare the target group of distance-learning students. Nevertheless, the converse difficulty is that in the dual-mode model the need to ensure comparability of standards and experience between campus-based and distance-learning students tends to limit those staff responsible for developing the academic curriculum to conventional forms of course design and inhibits them from exploring the full potential of distance education. In the single-mode model, these constraints are typically much weaker and curriculum developers are accordingly freer to develop distinctive forms of course design. In the UK, for instance, it is apparent that Open University courses differ from other university courses in their content and design, and not simply in their mode of delivery (Brew and McCormick 1979; Shaw and Taylor 1984).

Distance learning and open learning

In principle, then, it is possible to distinguish between distance education as external study (the dual-mode model) and distance education as open learning (the single-mode model). However, this apparently straightforward distinction is often obscured because in many countries there is an increasing tendency for administrative units responsible for distance-learning programmes in dual-mode institutions to refer to themselves as centres for 'open learning' or 'flexible learning' (see Keegan 1996: 29, 36). What do the latter concepts have to do with distance education?

The notion of 'open learning' has been very fashionable in further and higher education since the 1960s, although Bell and Tigt (1993) argued
that it had a much older history in British higher education. However, in practice, this expression has been used in a wide variety of ways and for a wide variety of purposes. As MacKenzie et al. (1975) commented:

Open Learning is an imprecise phrase to which a range of meanings can be, and is, attached. It eludes definition. But as an inscription to be carried in procession on a banner, gathering adherents and enthusiasms, it has great potential. For its very imprecision enables it to accommodate many different ideas and aims.

(MacKenzie et al. 1975: 15)

Rumble and Keegan (1982: 12) noted that the Open University in the UK was set up to be ‘open’ in respect of ‘(1) people, since it would not debar applicants on account of their lack of educational qualifications; (2) place, in the sense that learning would be home based and not restricted to classrooms or a campus; (3) the use of new methods of teaching and (4) ideas’. However, they acknowledged that not all of these features were to be found at other supposedly ‘open’ universities.

It is, in fact, common to find all distance education portrayed as a variety of open learning (see, for instance, Lewis and Spencer 1986: 17; Thorpe and Grugeon 1987: 2; Bell and Tight 1993: 3–4; Race 1994: 23). However, other writers have argued that there is no direct relationship between open education and distance learning (Keegan 1980). For example, Rumble (1989) proposed that ‘distance learning’ referred to a distinctive means or method of education (which could be either ‘open’ or ‘closed’), whereas ‘open learning’ referred to the nature of the education being delivered (whether contiguously or at a distance) and more specifically to the objectives and the character of the educational process. To elaborate, Rumble gave the following quotation (from a writer who was describing the process of setting up ‘open universities’ in Latin America):

Open education is particularly characterized by the removal of restrictions, exclusions and privileges; by the accreditation of students’ previous experience; by the flexibility of the management of the time variable; and by substantial changes in the traditional relationship between professors and students. On the other hand, distance education is a modality which permits the delivery of a group of didactic media without the necessity of regular class participation, where the individual is responsible for his own learning.

(Escotet 1980: 264)

Lewis and Spencer (1986: 37–42; see also Lewis 1986) suggested that particular programmes could be assessed as falling along a continuum from ‘closed’ to ‘open’ in terms of the extent to which learners have freedom and choice on a number of different aspects of their studying:

• who can learn
• why they learn
what they learn
○ how they learn
● where they learn
○ when they learn
○ how their learning is measured
○ who can help them learn
○ what they do afterwards.

Kember and Murphy (1990; see also Kember 1995: 11–12, 15–17) noted that some of these criteria of 'openness' were related to social or political trends that were concerned with the removal of restrictions on participation in higher education, whereas others were related to educational trends that were concerned with the promotion of student-centred learning in higher education. Kember and Murphy argued that only the former set of criteria should be used to define 'open learning'. They suggested that distance-education courses could be regarded as 'open learning' courses even if they showed no evidence whatever of being student-centred. Conversely, they suggested that activities in a typical primary school classroom, for example, might be highly student-centred but would not normally be characterized as examples of 'open learning'. However, even on the more restricted criteria, Kember and Murphy suggested that the external programmes operated by many Australian universities exhibited at best only a moderate level of openness.

In practice, institutional constraints, combined with the need to award externally recognized qualifications, often make it difficult to implement a genuinely student-centred approach to course design and course delivery in distance education (Farnes 1975; Thorpe and Grugan 1987; Keegan 1988; Bell and Tight 1993: 152–7; Holmberg 1993). Indeed, Harris and Holmes (1976; see also Harris 1987) argued that institutional factors tend to militate against 'openness' in distance education, even when this concept is defined in terms of social and political criteria. As a consequence, the concept of open learning nowadays has a rather confused and contested status in distance education (Bell and Tight 1993: 4, 139). Moreover, there will be additional problems in seeking to transfer the concept of openness from industrialized countries in which distance-learning programmes are supported by a rich variety of communication technologies to developing societies that are more dependent upon traditional written media (Escotet, 1980).

Distance learning and independent learning

Another expression that is used to capture the idea of students learning how, when and where they wish is 'independent learning'. In discussing how this was used in the literature, Moore (1972, 1973) proposed that it consisted of two different aspects or 'dimensions'. The first dimension was the separation of teachers at the time of teaching from learners at the time
of learning. The second dimension was the promotion of increased responsibility or autonomy on the part of the learners. Moore hypothesized that it was this latter dimension that differentiated distance education from campus-based activities involving programmed learning or computer-assisted instruction, which might otherwise be regarded as examples of independent learning.

Moore went on to argue that there was a positive relationship between distance education and student autonomy. On the one hand, he claimed, learning at a distance should encourage student autonomy by forcing learners to function in a self-directed way. On the other hand, autonomous learners should find distance teaching more amenable or congenial than traditional constrained learning situations. Indeed, in the subsequent research literature on distance education, student autonomy has tended to be characterized in two different ways, as Schuemer (1993: 5–6) noted: first, as a prerequisite for successful academic attainment in the face of transactional distance; second, as a goal or ideal that distance educators should strive to inculcate in their students.

Moore suggested that distance-learning institutions should try to design programmes that were more attractive to autonomous learners and, in a subsequent article (Moore 1986), he discussed the implications of this account for course design and academic staff development in distance education. Nevertheless, he also acknowledged that the promotion of learner autonomy was becoming widely accepted as a fundamental goal in the education of children and adolescents. Moore inferred from this that methods of distance teaching would provide the most appropriate means of delivering programmes in further and higher education for the forthcoming generation of autonomous adult learners.

As was implied earlier, at the time when Moore first proposed that distance learning required students to function in a self-directed or autonomous manner, the most common examples of independent learning in campus-based institutions were programmed learning and computer-assisted instruction. However, since that time, it has become increasingly recognized that the students' control of the learning process is a desirable – if not essential – ingredient of effective learning in all forms of secondary and tertiary education (see, for instance, Perry 1991; Taylor and Burgess 1995; Bandura 1997: chapter 6). As a consequence, it is becoming widely accepted that campus-based courses can and should involve independent learning.

No educational programme can be wholly autonomous because it has to be accredited by some relevant institution (Keegan 1996: 36). However, in principle, campus-based activities might be just as independent as distance learning, as is clear in the following quotation from Wedemeyer (1971), who was responsible for promoting the idea of independent study in the US:

Independent study consists of various forms of teaching–learning arrangements in which teachers and learners carry out their essential tasks and responsibilities apart from one another, communicating in a
variety of ways for the purposes of freeing internal learners from inappropriate class pacings or patterns, of providing external learners with opportunities to continue learning in their own environments, and of developing in all learners the capacity to carry on self-directed learning. (Wedemeyer 1971: 550)

Thus, distance learning and independent learning are in principle independent of one another. However, in practice, course designers in distance education may specifically aim to promote independent learning in their students. Indeed, in the US, all distance education has traditionally been characterized as a form of independent study (see, for example, Wedemeyer 1971; Moore 1980; Markowitz 1983).

Distance learning and flexible learning

During the 1990s, another approach to student-centred learning emerged under the heading of 'flexible learning'. Wade (1994: 12) defined this as 'an approach to university education which provides students with the opportunity to take greater responsibility for their learning and to be engaged in learning activities and opportunities that meet their own individual needs'. Flexible learning can be readily justified from a pedagogical perspective, on the grounds that it 'offers the learner a more actively constructive role by providing a framework in which learning goals can be more independently pursued' (Fleming 1993: 322). Nevertheless, in practice, the interest in flexible learning has been fostered by institutions of higher education as a response to economic constraints and other external challenges (Kirkpatrick 1997). As a consequence, examples of flexible learning may in fact turn out to be teacher-centred or institution-centred rather than student-centred (see Hudson et al. 1997: 3).

Whatever the underlying motivation, flexible learning usually has the goal of promoting student autonomy but, in order to achieve this, it has to combine the provision of learning packages that students can follow at their own pace with support and guidance at both an individual level and an institutional level. Laurillard (1993) examined the ways in which educational technology can be exploited for both these purposes. Indeed, flexible learning often amounts to a reorganization of institutional resources so as to bring about gains in economic efficiency through the use of new technology instead of face-to-face teaching (Kirkpatrick 1997). Moreover, for educational technologists, 'flexibility' often lies in the technology designed to support student learning and is not a feature of the learning itself (for a number of examples, see Hazemi et al. 1998).

The proponents of flexible learning often borrow techniques of course design and delivery from distance education. In fact, flexible learning is often referred to as a 'mixed-mode' form of course delivery that combines features of campus-based and distance education. Hudson et al. (1997: 191)
concluded that the introduction of more flexible delivery methods was resulting in a blurring of the distinction between campus-based learners and distance learners. Nevertheless, most of the case studies described in their book are unequivocally examples of campus-based education (where flexible learning may be used to develop the generic skills of an increasingly diverse student population) or of distance education (where flexible learning may be used to develop the skills of specific professional groups) (see also Wade et al. 1994).

In short, flexible learning can be applied in campus-based education or in distance education. This is made explicit in the definition of ‘flexible learning’ given by Van den Brande (1993):

Flexible learning is enabling learners to learn when they want (frequency, timing, duration), how they want (modes of learning), and what they want (that is learners can define what constitutes learning to them). These flexible learning principles may be applied at a distance. If so then the term ‘distance learning’ is used. In such cases the learners can choose where they want to learn (at home, at an institution or company, at a training centre, etc.).

(Van den Brande 1993: 2; italics in original)

Once again, distance learning and flexible learning are in principle independent of one another. Or, as Keegan (1996: 29) put it, distance education is neither flexible nor inflexible per se.

Approaches to studying in campus-based and distance education

To return to the main theme that I elaborated earlier in this chapter, there is a physical, temporal and transactional separation between students who are taking courses by distance learning and their teachers. There is a similar separation with the teaching institution itself and, often, with other students taking the same courses. All this clearly implies that the experience of distance education is likely to be different from the experience of campus-based education. As Marland (1989: 178) spelt this out: ‘Distance learners constitute a sub-group of tertiary students whose instructional programmes and materials, learning contexts and problems differ markedly from those of their on-campus peers’. What is far less clear, however, is whether the different mode of course delivery has an impact upon how students go about their academic studies. For instance, if distance education either demands or fosters learner autonomy, students taking programmes by distance learning should be more likely to engage with their studies in an active manner than students taking equivalent courses in campus-based institutions.

In attempting to investigate whether the different mode of course delivery has an impact upon how students in distance education go about their
academic studies, there are several important practical considerations to be borne in mind. Kember (1989b) identified three of these. First, the process of data collection is rendered more difficult when the student participants are external to their teaching institution. Unless contact can be made at residential schools or tutorials, they will need to be visited for the purpose of carrying out interviews, while questionnaire surveys may suffer from inadequate address lists or poor response rates. Second, a much wider range of contextual variables needs to be taken into account, because distance-learning students will be working in a wide variety of physical and social contexts. (In the dual-mode model of distance education, it is at least possible to compare internal and external students who are following the same courses, but even this is not possible in the single-mode model.) Third, the population of students in distance education is usually more heterogeneous in terms of demographic variables than the population of campus-based students; in particular, students in distance education often show a much wider distribution of age, social background, previous educational experience and academic qualifications.

Nevertheless, my aim in this book is to evaluate the hypothesis that approaches to studying in distance-learning students are different from those in campus-based students. Many of the key concepts originated in qualitative, interview-based research, and I shall consider the evidence from this research in the following three chapters. Subsequently, different attempts were made to operationalize these concepts in formal inventories and questionnaires that could be used to generate quantitative data from large numbers of participants, and the main part of this book will describe the development and application of these various instruments. My justification for this approach is the social constructionist position that concepts and theories in social research are constituted in specific social encounters between researchers and their participants (Gergen 1994). It does not therefore make sense to describe research on approaches to studying without providing a detailed account of the nature of those encounters, the research methods by which they are regulated and the analytic techniques that are used to make sense of the results.

In short, I shall describe the concepts and methods used in qualitative and quantitative research concerned with approaches to studying in higher education, and in each case I shall provide a critical review of the main findings, with particular regard to those that bear upon the central hypothesis that the approaches to studying of distance-learning students are different from the approaches to studying of campus-based students. I will also consider whether any differences that are found between the approaches to studying of distance-learning students and campus-based students are produced by the different modes of course delivery or by differences in background variables such as age and previous academic experience. Finally, I shall discuss the main issues that emerge from this research, as well as its implications for future research and for course development in both campus-based and distance education.
Concluding summary

• For the purposes of this book, 'campus-based education' refers to the traditional arrangement whereby students attend particular institutions to receive teaching through immediate contact with academic staff and support in their learning from libraries and other services.

• In contrast, 'distance education' refers to arrangements whereby students engage in learning at a physical distance from their teachers and their institution (and, often, from one another) and typically at a temporal, social and personal distance as well.

• Campus-based education and distance education may be delivered by the same institution (in the dual-mode model) or different institutions (in the single-mode model). Distance learning is often described as 'external study' in the former case and as 'open learning' in the latter.

• Nevertheless, the expressions 'open learning', 'independent learning' and 'flexible learning' all refer to the nature of the educational process and, conceptually at least, they are strictly independent of whether the education is being delivered contiguously or at a distance.

• This book is concerned with whether approaches to studying in distance-learning students are different from approaches to studying in campus-based students, and whether any differences that arise are due to the different modes of course delivery and not simply to differences in background variables such as their age or their previous academic experience.