Holmberg, B. (2003). Distance education in essence - An overview of theory and practice in the early twenty-first century (2nd ed.). Oldenburg:Bibliotheks- und Informationssystem der Universität Oldenburg. pp. 71-91

7 Expectations and outcomes

For a long time the forms of distance education known as correspondence study, home study and external study were widely regarded with scepticism. At the beginning of the twentieth century they were often seen as something pathetic, as modest and largely ineffectual attempts to overcome underprivileged people's lack of early schooling. Among educationists little was expected of these unconventional forms of study. While this is no longer so in Europe, where distance education, largely thanks to the public distance-teaching universities, has much prestige, there still seems to be prejudice against it in the USA.

Views and validated evaluations of distance education

Those practising distance education a hundred to fifty years ago - then almost exclusively based on the printed and written word and occasional audio recordings – were convinced that distance education could be made effective - and some of them saw to it that this was done. Naturally there was much interest in studies comparing the effectiveness of distance education with that of traditional face-to-face teaching and learning, and a number of such studies were carried out, regrettably only rarely with the acumen required of proper scholarly examinations. One of the scholars who did meet the requirements of sound educational and statistical study was Gayle B. Childs of the University of Nebraska. He could show that correspondence education as practised in the USA in the middle of the twentieth century was by no means inferior to traditional education in imparting knowledge and skills. In 1965 he wrote: 'One thing of which we may be certain is that correspondence study does an excellent job of subject matter instruction' (p. 80). Similar conclusions were drawn in Sweden, for instance, where correspondence education

had by then acquired so much prestige that the largest correspondence school, Hermods, had in 1958 been given official status as an examining body for university entrance and other examinations. (On Childs' and other early effectiveness studies see Childs (1965 and 1971) and Granholm (1971).)

Thus long before information technology had begun influencing media use and methodology distance education had proved its effectiveness in what, following Bloom (1956), we call the cognitive domain and also, to some extent, in the psychomotor domain (drawing, typing, shorthand writing, manipulating machinery). Much later its potential also in the affective domain was illuminated (Sparkes, 1982).

The negative prejudices related to distance education were long-lived, however, not only in the United States, and were aired in Europe as late as the 1980s. With the advent of information and communication technology there was, to judge from press publicity, a radical change in the opposite direction, at least initially. A kind of technology euphoria was widely spread in the 1990s and education based on the use of computers became both popular and highly respected (cf. Chapter 3 above on the technology debate). This contributed to drawing attention to favourable experiences made by distance students and former distance students, to the extensive methodological development work that had been carried out and to the inclusion of distance-education research in respected academic milieus. This mode of education thus became a well-established approach with prestige.

At the beginning of the twenty-first century thus fewer voices querying the effectiveness of distance education are heard and evaluation reports support the positive conclusions drawn from what is generally said and written. As early as 1994 Bartels showed that 38.7% of the

FernUniversität graduates in business administration had, only five years after they had attained their degrees, been promoted into top management positions and high-scale salaries. Woodley (1995), who pays considerable attention also to outcomes other than those concerned with careers, reports that around three out of four Open-University graduates declare that they have gained ‘great’ or ‘enormous’ benefit from their study.

The great distance-education providers regularly carry out careful evaluation studies which invariably testify to the effectiveness of distance education. We are thus on safe ground when we state that distance education has proved to be an excellent form of study for many students. A number of success stories characterise the work in the field.

However, the evaluation reports also almost invariably show that high drop-out figures are typical of distance education. ‘When non-starters (i.e. students who have registered for the course but who have not sent in one single assignment for correction and comment) are included among non-completers, dropout rates round 50 per cent are not unusual’ (Bååth, 1984, p. 32). Even higher dropout figures are far from rare. There is, in fact, a dropout problem in most distance education. This has been carefully studied by, apart from Bååth, several other researchers, among them, Cookson (1990), Schuemer & Ströhlein (1991), Peters, (1992), and Morgan & Tam (1999).

The backgrounds of success and failure

Naturally the awareness of this problem has caused distance educators not only to search for the causes of discontinuation but also to try to find remedies. Studies on the influence of domestic environments, social conditions, age etc. have been carried out without, as Sewart (1983, p. 168) puts it, pointing to any ‘quantifiable term …standing … out as a

salient feature. It is motivation above all else which, despite physical and general social and environmental problems, brings success'. Attempts to develop models for the study and reduction of student drop out have been made. A critical investigation of these was carried out by Woodley, de Lange, & Tanewski (2001).

On the basis of my many years of experience I dare claim that the most favourable factor paving the way for motivated students' success and preventing dropout is empathy between the learning and teaching parties, availability of immediate support and advice when difficulties crop up, ease in consulting tutors and other subject specialists and general feelings of rapport. Thus, again, I refer to my theory of distance education as set out in Chapter 4.

Much has been written on evaluation principles, procedures and experiences. I refer to Chapter 10 of my book *Theory and practice of distance education* (1995), in which several authoritative studies are referred to. It is no doubt correct to state that by now we have a pretty good grasp of the potentials and outcomes of distance education.

Costs

A very special type of evaluation concerns its costs and cost-effectiveness. It is possible to run distance education in a very economical way, working with large numbers of students per course, thus benefiting from economies of scale, and limiting the media offers to, for example, the written word and e-mail. However, it is extremely difficult to lay down general principles for how to judge the benefit of each component included in the distance education provided in relation to its cost. We must presumably accept that we can go no further than stating that distance education can, under some circumstances, be more cost-effective than traditional education, but that, on the other hand, no generalisable conclusion can be drawn

as distance education occurs in many different forms, using merely one medium or in other cases several media, one approach or several approaches etc. (On the issue of costs see Dhanarajan et al., 1994, and Hülsmann, 2000.)

Independent learning

The relation of student independence to distance education

From the very beginning it has been claimed that distance education is a type of study particularly suitable for the independent learner and also promoting student independence. There is no denying that distance learning requires a certain amount of independence. Learners studying on their own without any teacher or other person present to organise periods of learning and bring learning matter to the their attention have to possess a capacity which can be described as independence in carrying through learning tasks. These tasks may, however, be prescribed more or less in detail by the distance-education course. If, as is usually the case, much of the decision making as to when and how the study is carried out is left to the individual students we have reason to talk about self-regulated learning. The type of independence that is thus described as self-regulation characterises most distance education.

If by independence we merely mean self-regulation and define this as the capacity individually to carry through study tasks set, we are, of course entitled to claiming a special relation between distance education and independent learning. However, another type of independent learning requires each student to judge learning material and other sources in relation to the aims of the study, to select relevant matter, compare items and arguments, analyse and synthesise. Paul (1990, p. 32) refers to ‘openness to new ideas and to rethinking current beliefs..., attitudes (self-motivation) and the development of new skills, problem conceptualisation,

critical and lateral thinking, research and library skills'. The relations of distance education to this type of independence is by no means clear, however.

Nevertheless there are many distance-education courses catering for this type of far-reaching independence, some of them by making problems rather than what we know about their solutions the starting-point (as shown by Weingartz, 1980, e. g.). They may represent what is called genetic learning, exemplified in Lehner (1979, pp. 76-77) by a presentation of gravitation starting out from the questions asked by Aristotle and Galileo instead of from present knowledge. Weingartz' study shows that, while being by no means representative of most distance education, this kind of independence is catered for internationally in a number of courses offered.

Almost complete independence occurs in so-called contract learning, which expects students themselves to suggest the objectives of the course programme they have in mind, to develop a full plan for their study, usually a plan for a complete unique degree including the types of examination foreseen (written or viva-voce, project, thesis etc.), to submit this plan to the supporting organisation (university) for modifications and possible additions and then to carry through the study on the basis of the literature, distance-education courses and other relevant learning material identified in the plan agreed on in a learning contract. The Empire State College of the State University of New York and East London University in the UK are well-known providers of this type of degree study (Coughlan, 1980; Worth, 1982, and Weingartz, 1991).

Only this third type of independent learning should be described as really autonomous. I regret having been too generous in my use of the

term autonomous learning in earlier publications. For an excellent analysis of the autonomy concept see Peters (1998, pp. 46 - 54).

Moore, well known for his early study of student independence (1976, 1983), which in distance education he regards as based on the degrees of dialogue and structure characterising a course or programme, has identified what he calls transactional distance to describe the mental rather than the spatial distance between the teaching and learning parties in distance education (1993). Reducing this mental distance is naturally an essential task. Saba (1989) has studied this further and expanded Moore's concept of transactional distance, which can be minimised by telecommunication maximising dialogue. The empathy approach outlined in Chapter 4 is highly relevant here.

A study of practice in a great number of distance-education organisations in various parts of the world has clearly shown that independence as practised must be regarded from two different viewpoints. Distance-education programmes have been shown either to expect or to promote students' independence, a view analysed and identified by Lehner and Weingartz (Bückmann et al., 1985; Lehner & Weingartz, 1985; Lehner, 1991 and 2000).

It seems remarkable and worth mentioning that some writers see no relation between distance education and students' independence (Willén, 1981; Garrison & Shale, 1990).

Attitudes to the independence issue exert practical influence on the execution of distance education, on guidance and control. They decide if and to what extent students are given the possibility to pace their study on their own, cf. Daniel & Marquis (1979) and Coldeway (1986) discussed in my *Theory and practice* (1995, pp. 168 - 169). These attitudes also influence what, if any, intervention by the supporting organisation in

students' learning is accepted. There is a school of thinking that considers even encouraging letters and telephone calls caused by students' inactivity as encroaching on their independence and integrity and interprets drop out as the result of the independent student's mature decision to discontinue the study. This is in my view absurd as it means that the particular situation of individual adult distance students is disregarded; if distance students are not heard from, submit no assignments or questions this is seldom the result of a conscious decision to finish or interrupt study but rather an outcome of the pressure of conditions unrelated to the study (cf. what is said about this under 'Counselling' in Chapter 5 above). There is much evidence to show that encouraging telephone calls and other types of contact from the supporting organisation offering advice and support (Rekkedal, 1972, e. g.) exert highly positive influence on students' motivation to continue their study or start again.

The independence issue in distance education has engaged several scholars. Relevant contributions of interest, apart from those mentioned above, are, e. g., Weingartz (1990), Elton (1988), and Boud (1988).

Self-regulation in practice

Let us first consider the more modest requirements of the type of independence described above as self-regulation. The extra-paradigmatic innovation mentioned in Chapter 2 above facilitates self-regulation. If - as in some highly successful distance-teaching organisations - students can register for study at any time, work at their own pace, submit their assignments for correction and comment at any time of the year and register for examinations when they feel ready for them, then much is done to bring about self-regulated learning. It is a remarkable - and in my view regrettable - fact that most open universities do not avail themselves

of this possibility for students' self-regulation but insist on semesters and fixed vacation times.

Why universities created for adults should follow the conventions of traditional universities in this respect is not easy to understand. Some people have better opportunities for study during 'normal' vacation times than in traditional term time. Conditions in business and industry, where many distance students work, by no means always coincide with what is desirable from the points of view of the academic calendar, nor do family conditions, births or illnesses.

When there are no fixed periods for either study or vacations, the distance-teaching organisations have to provide service on all weekdays apart from recognised national or church holidays, which is sometimes said to be impossible. That it should be so is a myth, however. Two of the organisations in which I have had leading positions allow - and encourage - their students to avail themselves of the opportunities for counselling and tutoring at any time of the year. It is up to the individual student to decide when (or even if) he/she makes breaks in the study for holidays.

The question whether or not some kind of pacing should be prescribed by the supporting organisation is contentious. Personally I favour a liberal approach causing each student to make his/her own time plan at the beginning of the study and informing the supporting organisation of this plan. When the student deviates from the plan in the sense that he/she works more slowly than planned it will be part of the student support given by the university or school to remind him/her of this. The outcome will be either more intense study or the development of a more realistic time plan than the one the student had not been able to follow. This plan may foresee periods of highly concentrated study, for instance during normal vacation time, to compensate for comparatively few study

hours per day or week at other periods. On this issue see further my *Theory and practice of distance education* (1995, pp. 165 - 172).

Further-reaching independence

As already indicated (Chapter 5) it is possible to give students the right and possibility to decide on their own learning objectives not only in contract learning but also in the study of occasional subject-matter areas. They may build up individual courses by combining selected course units. This is possible only if each course unit is provided with detailed statements of objectives which can be used as bases for the selection (cf. Ljoså & Sandvold, 1983).

Whether a distance-education course caters for and encourages students' independence by making them analyse and synthesise, compare and draw conclusions, is a function of the presentation and interaction methods applied. The conversational style recommended above as a consequence of the empathy approach is highly suitable for guiding students in their use of various sources and their considerations of the problems inherent in their study. So are, of course, personal one-to-one interactions with tutors and peer-group discussions, nowadays easily brought about by e-mail and computer conferencing.

Contract learning as described above goes very far in relying on the independence of students. It can be combined with distance education, but need not necessarily be based on distance-education courses. Weingartz (1991) illuminates it in relation to distance education.

8 Distance education and society

When in the nineteenth century distance education was organised in the form of correspondence study there was a clearly understood social objective, that of making education and the acquisition of intellectual competencies available also to the underprivileged, those who for reasons of poverty or subordinate positions had not had the opportunity to get the kind of schooling required of those wanting to go in for higher education or for making careers in trade or industry. Thus general education and occupational/professional training became the main purposes of study. Distance education was, in fact, extremely successful as a 'second-chance' educational possibility and paved the way for academic success and careers of various kinds for gifted and hardworking people with no possibility to benefit from traditional study paths. Thus distance education contributed to upward social mobility and to enriching society with qualified people emanating from social groups earlier underrepresented among leading categories. In 1973 Gaddén could show that a great number of leaders in Swedish industry, banking, university and trade unions had had all or most of their pre-university education as students of Hermods, a very large non-profit making distance education provider.

The situation has changed in the developed world by the widening of publicly provided education, but there can be no doubt that distance education in many cases still provides a second chance for learning and that there is considerable need for this function. However, other social concerns have also come to the fore, such as questions concerning the role of distance education in preserving societal status quo or promoting change.

Towards the end of the twentieth century several social scientists thus began looking into distance education from other viewpoints than the methodological ones which had mainly occupied the distance educators themselves. The student bodies of particularly the large distance-teaching universities were studied, and so were the institutional concerns of these universities and their relations to trends in society. Many came to the conclusion expressed by John Field (1994, p. 9) that 'commercial, technological and cultural trends combine with one another to reinforce the appeal of distance open learning to a consumer market which currently shows every sign of growth without limit'.

If at the outset distance education represented 'marginal systems for marginalised sections of the population' (Tait, 1994, p. 26) it is now a widely recognised and respected mode applied by people of practically all categories. At the university where I have made my latest experiences of distance education most students hold highly responsible jobs and many already have a degree behind them before they enrol. They certainly do not represent an underprivileged group but are in most cases well established people who study with a view to getting into the front line of new developments.

It has been argued that research has largely neglected the external forces influencing and being influenced by distance education (thus Campion & Guiton, 1991, e. g.) and that emphasis on internal, methodological problems is not enough. Questions concerning power and control, societal pressures etc. also attracted the attention of several scholars in the 1990s, thus, e. g., Tait (1994), who equates critical approaches to distance education with 'the end of innocence', Edwards (1991), Harris (1987), Raggat (1993), and Faith (1988). When in these contexts the adjective 'critical' appears it usually refers to criticism of society and social conditions or the role of distance education in society, not, as expected

by many educationists, criticism of teaching and learning methods or of empirical research. From discussions of the application of 'Fordism' and 'Post-Fordism' to distance education and the use of this mode of education not only in open societies but also in dictatorships it is evident that distance education - like any mode of education - can serve various ideological and other purposes. It may, as Sumner (2000) claims, serve the established system or a supposedly better society - or it may wholly disregard this issue. The only ideological tendency that can be considered inherent in distance education is, because of its as a rule individual and private character, individualism.

A safe-guard against anti-pluralistic indoctrination is available in the form of promotion of students' independence, which in turn can benefit from the conversational approaches as discussed above. Distance education as such neither favours nor counters social developments, as it is open to contents of various kinds. It has great potential for discussions, openness as to views and arguments, for pluralistic approaches and unprejudiced learning, however. It is up to the distance educators to avail themselves of these possibilities by presenting in as unbiased a way as possible alternative approaches and interpretations, inspiring search and discussion free from dogmatic shackles and generally paving the way for reflection.

9 Research on distance education

The great number of references to scholarly studies and empirical examinations given in the preceding chapters have already made it clear that much research has been carried out on distance education. Attempts have been made to survey the research situation and provide overviews of what has been done. Otto Peters published such a survey in 1997 (in German). I have tried to summarise in a useful way the research carried out until the middle of the 1990s, thus, for example, in Holmberg, 1990 and 1996. Also my book *Theory and practice of distance education* of 1995 reports comprehensively on the research data on which it is based.

The themes reported on in these publications have concentrated on target-groups and environmental studies, students' learning conditions, development of learning materials, interaction, organisation and administration, economics, applications of various types of and approaches to distance education, evaluation and theory attempts, and to an increasing degree 'exogenous' factors related to distance education in society (cf. Campion & Guiton, 1991). What out of the research findings thus available has seemed to me to be of great relevance at the beginning of the 21st century has been briefly discussed in the first eight chapters of this book, which, however, does not mean that I claim to have given full and adequate information on the research reports referred to. I have made a selection of contributions which are important from my point of view. For further information I refer my readers to the original articles, reports and books listed.

There is, in fact, evidence of so much distance-education research of an acceptable standard that the field can well be described as a discipline of its own. On this issue see a discussion in the *Journal of Distance*

Education I, (1) (1986) and *IV*, (1) (1989) as well as chapter 11 of Holmberg (1995). Nevertheless we have to acknowledge that there are evident weaknesses in some fields.

In quickly developing areas more or less new to distance education it is thus hardly possible to present a cohesive picture of relevant research. This would seem to apply to the use of information and communication technology. In the research surveys mentioned above little attention is paid to the role of technology in distance education. In the first decade of the 21st century there is, of course, much literature on it, the lasting relevance of which is very difficult to judge. Apart from the sources looked into in the previous chapters references should be made to a consecutive series of articles on this concern in *The American Journal of Distance Education* and, further, for example to Cookson (2000) containing a list of internet-related issues facing higher education and Eisenstadt & Vincent (1998) elucidating artificial intelligence technologies,

Although computer technology and its applications develop at very high speed and new techniques can thus be foreseen it is tempting to regard the present status in this area as representing at least an excellent and influential intermediary position. What I have in mind are the possibilities to search the world-wide web for information and literature, to use the net on the one hand for additions to and corrections of printed learning material, on the other hand for interaction with individual students by e-mail and with groups of students by computer conferencing. As shown above in Chapter 2 a-synchronous computer seminars have particularly great potentials for adult distance students. Future research in this area will no doubt bring about new approaches and possibly even better solutions.

An old extremely important concern in which we have too little validated knowledge is students' learning as influenced by distance education. We

simply know too little of how students really learn. Marland et al. (1990 and 1992) made small-scale interview studies of the mental processes which mediate or come between the teaching and the learning outcomes, such as strategy planning, hypothesising, elaborating and generating. They reported on interesting findings from the small groups that their studies necessarily had to be limited to. I wish to plead for more interest in studies of this kind (as I did at the EDEN research workshop in Prague in March 2000; Wagner & Süzs, 2000, p. 3). It would seem to be possible to continue along the lines indicated by developing a series of questions aiming at finding out how students really learn and by inspiring colleagues all over the world to carry out interviews on the basis of these and report on the outcomes to a group of scholars prepared to collate the replies given. Much work would be required for such a study including strict guidelines for the interviewing, transcription of the interviews, schemes for coding replies and the coding itself by independent coders, constant international co-operation etc. In my view a study of this kind – or any other study contributing real knowledge about students' learning – would be worth much demanding work.

Although we are no doubt entitled to claim that distance-education research has by now reached an acceptable level much remains to be done. My references to information technology and students' learning are simply examples of personal choices made on the basis of much thinking and many years of work in distance education. A great number of other research needs could well be added.

10 Summing up

The very gist of the above presentation can, if summarised in just a few sentences, be described as follows:

Distance education means learning without learners and teachers meeting face to face or only meeting occasionally to supplement the teaching and learning that takes place non-contiguously. It can be and usually is wholly individual, students meeting other students either not at all or only occasionally at supplementary face-to-face sessions and each student working at his/her own pace.

Distance education has two constituent elements, on the one hand presentation of learning matter, i.e. in principle one-way traffic, on the other hand interaction between learners and teachers and sometimes in the form of peer-group interaction, i.e. learners interacting with one another.

Special methods and media have been developed both for the subject-matter presentation and for the interaction; modern information and communication technology contributes to the effectiveness of distance education.

There are special organisations set up to develop, apply and administer distance education. It is their task to co-ordinate and carry out effective support of the distance learners. They can adequately be called supporting organisations.

Distance education from its beginning in the 19th century had and still retains an innovatory character; striking outcomes of this are on the one hand an almost unparalleled one-to-one relation between individual learners and individual teachers, on the other hand the possibilities it offers for individual and self-paced learning.

Distance education is above all a mode of learning applied by adults with jobs, families and other social commitments; its adaptability to the conditions of adult life and to self-regulated learning constitute the background for this. However, also children and youngsters are distance learners, above all in scarcely inhabited areas or where grammar schools have not a sufficient number of academically duly qualified teachers.

Millions of learners in various parts of the world use the teaching-learning facilities provided by distance-teaching organisations, among them more than thirty established distance-teaching universities, some of which have more than 100 000 students enrolled.

Distance education is being constantly evaluated and has proved to be very effective in helping motivated and hard-working students to reach their goals.

Like other modes of learning distance education can serve both truly educational objectives and mere instrumental learning; on the one hand it has the potential to contribute to the development of independence in learning, on the other hand it usually expects a certain amount of independence on the part of the learner.

There is a wealth of research on distance education and some theory building both of a kind to guide its further development and of a sociological type; in this book important parts of this research are expounded and a theory based on the principle of empathy and the use of conversation-like approaches has been presented with a report on its testing.

Several distance educators have contributed descriptive, critical and querying studies of distance education, its principles and practice as well

as its role in society; the above presentation draws on and comments on these.

The first nine chapters of this book illuminate and discuss the points listed, show how distance education is practised on the basis of principles specified and provide groundwork for further thinking and practice.