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ABSTRACT

This discussion of the relationship between self-directed learning, adult development, and distance education presents findings from researchers in the field of autonomous learning. In addition, the implications of self-directed learning for the curriculum and teaching methods in distance education are considered. The document is divided into the following sections: (1) assumptions about learning and teaching; (2) the self-directed or autonomous learner; (3) topics in which self-directed learners are interested; (4) the implications of self-directed learning for the organization of distance education systems; (5) teaching the self-directed learner; (6) the author's personal experience with an open university course for adults, "Education for Adults"; (7) technology in the service of the individual; (8) a chart summarizing the life cycle research theories of eight contemporary researchers; (9) a section of the course outline for "Education for Adults"; and (10) a list of references. (JB)

FernUniversität
Gesamthochschule

ZIFF PAPIERE 48

SELF DIRECTED LEARNING AND DISTANCE EDUCATION

MICHAEL MOORE

Table Descriptions of life-cycle phases

Phase and age	Marker events	Psychic tasks	Characteristic stance
Leaving home 18–22	Leave home Establish new living arrangements Enter college Start first full-time job Select mate	Establish autonomy and independence from family Define identity Define sex role Establish new peer alliances	A balance between 'being in' and 'moving out' of the family
Moving into adult world 23–28	Marry Establish home Become parent Get hired/fired/quit job Enter into community activities	Regard self as adult Develop capacity for intimacy Fashion initial life structure Build the dream Find a mentor	'Doing what one should' Living and building for the future Launched as an adult
Search for stability 29–34	Establish children in school Progress in career or consider change Possible separation, divorce, remarriage Possible return to school	Reappraise relationships Re-examine life structure and present commitments Strive for success Search for stability, security control Search for personal values Set long-range goals Accept growing children	'What is this life all about now that I am doing what I am supposed to?' Concern for order and stability and with 'making it' Desire to set long-range goals and meet them
Becoming one's own Person 37–42	Crucial promotion Break with mentor Responsibility for three-generation family, i.e., growing children and aging parents For women empty nest, enter career and education	Face reality Confront mortality, sense of aging Prune dependent ties to boss, spouse, mentor Reassess marriage Reassess personal priorities and values	Suspended animation More nurturing stance for men, more assertive stance for women 'Have I done the right thing? Is there time to change?'
Settling down 43–55	Cap career Become mentor Launch children, become grandparents New interests and hobbies Physical limitations, menopause Active participation in community events	Increase feelings of self-awareness and competence Re-establish family relationships Enjoy one's choices and life style Re-examine the fit between life structure and self	'It is perhaps late, but there are things I would like to do in the last half of my life' Best time of life
The mellowing 57–64	Possible loss of mate Health problems Preparation for retirement	Accomplish goals in the time left to live Accept and adjust to aging process	Mellowing of feelings and relationships Spouse increasingly important Greater comfort with self
Life review 65+	Retirement Physical decline Change in finances New living arrangements Death of friends/spouse Major shift in daily routine	Search for integrity versus despair Acceptance of self Disengagement Rehearsal for death of spouse	Review of accomplishments Eagerness to share everyday human joys and sorrows Family is important Death is a new presence

Sources Chickering and Havighurst, 1981, Gould, 1972, Lehman and Lester, 1978, Levinson and others, 1974; McCoy, Ryan, and Lictenberg, 1978, Neugarten, 1968, Sheehy, 1976, Weathersby, 1978

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Abstract

The discussion of self-directed learning and distance education must begin with consideration of the concept learning-in-education. The interest of educationists is in learning which is intended and planned. As for teaching, our interest is in any actions aimed deliberately and primarily to help learning. The meeting of learners with teachers does not have to be personal but can be through media, a "meeting of minds". In such distance education the critical factors are structure and dialogue because these determine the extent to which teaching can be adjusted to the abilities and needs of each learner. Self directed learners are able to design their own learning programs, drawing from teaching programs only those parts which are appropriate for their goals. Such learning is common among adults, for self direction is the distinguishing characteristic of adult learning. Teachers and especially counsellors often fail to respect and support this learner self-direction, and in Euro-American education such learning is generally disregarded by educationists. Tough's research was a major contribution to winning recognition for self-directed learning.

Adults are especially interested in learning which arises from their passage through the developmental stages of the adult life-cycle, and such learning can well be supported by distance teaching - as it is in the Open University's Continuing Education program. There are implications of self directed learning for the organisation of distance education systems. In particular there is need for an advice and information giving network. There are many implications in self-directed learning for teaching in distance education, and a personal experience of attempting to facilitate self direction in a distance education course is described. In conclusion it is suggested that those who believe in learner freedom, individualism and self-direction must be prepared to defend those values against the encroachment of mechanistic organisation - men, and women.

Assumptions about learning and teaching

We will consider in this paper, some aspects of the phenomenon called "self-directed learning" and the implications for the curriculum and teaching methods in distance education.

A discussion of the nature of self-directed learning must begin with some consideration of the concept "learning" since there is a common failure to understand the differences in meanings of learning as a psychological construct, in its everyday use, and its special meaning for educationists. As a consequence, many people conclude that self-directed learning is a human activity which is so ubiquitous, so commonplace, that it is not definable, nor can it be manipulated, nor studied. No such confusion and misunderstanding is necessary if we begin with a proper theory of learning-in-education. Of course there is no one theory generally accepted, but there is a generally accepted classification of the main theories into those which view learning as a mechanistic process of response to externally induced stimuli; as a reorganisation of cognitive structures; as adjustment of the person in his environment; and as the development of social relationships. In their different ways theories of all these types explain how we learn - i.e. how our perceptions and behaviours change as a result of experience. They explain how we learn to stop at a red light, how to behave in a shop in a foreign city, or how to find one's way around the city by bus. Such learning is usually unconscious, and occurs as a result of numerous accidental experiences. It is learning which is not PLANNED. Such everyday, casual and random learning is studied by the psychologist. It is not the domain of the educationist. Ours is a more narrow focus, for our interest is not primarily in understanding how learning occurs - though of course such knowledge is helpful - but our primary interest is in making it happen, in improving it, in planning for it, in helping it to happen. Our concern is in

constructing an environment in which the individual learner, or group of learners, or whole community can learn. A key concept, essential to understanding education, and consequently essential to understanding self-education is INTENTION. Watching a television programme, or riding on a bus, or reading a novel, are all likely to result in learning, but as educationists we are interested in such activities only if they were carried out with a deliberate, conscious INTENT to learn.

It is these characteristics of INTENT and PLANNING which distinguishes the learning we study from that which interests psychologists and others, as for example advertisers, broadcasters and propagandists.

> "What we are really looking at", says the Canadian Allen Tough, "is the intention of the activity. So that regardless of what the person is doing if he is trying to learn, trying to change through that activity, then we call it a learning project.People do learn in other ways. There are lots of activities that lead to learning. But if that is not the person's primary intention then we do not include it in our definition of a learning project ... I define a learning project as an effort to change." (Tough 1976)

K.H. Lawson of the University of Nottingham makes the distinction between what he calls learning situations and educational situations:

> "The question 'has he learned X' ... is concerned only to illicit whether or not x has been acquired. The question can however be put with a different emphasis, meaning 'has he learned x' where learn in given a rather special meaning. ... A learner is someone who wants to achieve something and who is prepared to do something in order to achieve it." (Lawson 1974)

So all the learning situations which we educationists are concerned with - even when we talk about self-directed learning - are those in which there is a deliberate goal. If there is a goal there must also be, explicitely stated or implied, some criteria of its achievement, and in such planned, goal centred learning, there must be some strategy for reaching the goal. The processes of

deciding on the goal, the strategy and the criteria of attainment of the goal, we call program planning; carrying out the program plan we call implementation; and making decisions about attainment we call evaluation. Together these processes make a learning program:

> "... a purposeful, deliberate planned activity or series of activities by a learner intended to result in a change in knowledge, behavior or attidudes." (Moore 1977)

Charles Wedemeyer describes the learning program in terms of the different roles played by the learner. He believes that there are seven such roles. The first three are concerned with determining the learning goal, the next three with its implementation; the others are concerned with evaluation:

> "Role Behavior 1: The learner is passive with respect to learning because he thinks he is learned enough to survive and perceives no new learning needs.
> Role Behavior 2: He is anxious because he thinks or fears that maybe he doesn't know enough, and begins to weigh whether and how he could learn general or specific things that would meet his needs better. His needs are only vaguely perceived but he is beginning to display goal-seeking behaviours.
> Role Behavior 3: He casts about for leads that will put him in touch with learning opportunities to satisfy his needs in his situation. His needs are now more sharply perceived, and are being transmuted into learning goals. Anxiety increases, particularly if he fails to locate opportunity that is accessible to him.
> Role Behavior 4: He acts on his goals, makes decisions among the possibilities open to him. He does something to enhance his learning, such as enroll in a learning program or begin one on his own. Whatever overt or covert action is taken to initiate purposeful learning, goals continue to undergo modification. If the action taken is formal, goals are modified according to institutional programs and accessibility. The learner displays learning- or knowledge-seeking behaviours.
> Role Behavior 5: He becomes a student in a specific program. He begins learning.
> Role Behavior 6: He persists (or does not persist) in learning.

Role Behavior 7: He reaches (or does not reach) his and/or the institution's goals. Anxiety is reduced if sucessful; increased if unsuccessful. Further goal modification."

(Wedemeyer 1981)

Educators, like learners, have intentions and role behaviours. Their intentions are to decide what people might want to learn, or what society might want learned, and to state these wants as teaching goals; they find and organise resources and strategies for achieving their goals, and some way of measuring attainment.

" A teaching program is a purposeful, deliberate and planned activity or series of activities intended to change the knowledge, behavior or attitudes of a learner." (Moore 1977)

Very often, especially in the institutionalised education of young people, role behaviours of the normal learner are overlooked and the processes of learning are taken over by teachers. This is unfortunate, and leads too often to a disrespect for, and rejection of teaching. Education should be an interaction of learning programs and teaching programs, with, ideally, a perfect fit between a learner's goals and a teacher's, between the strategies and resources needed by one and offered by the other, and between the criteria of attainment which each finds acceptable.

There cannot be education without some form of teaching. The very word education in English is derived from Latin "educare", itself related to the verb "educe" meaning "to bring out, to develop, from latent or potential existence" (Oxford dictionary). It is a transitive verb - i.e. somebody must do the educing; at least two persons must be involved in any educational relationship. At some point even the self-directed learner must use help deliberately planned and prepared by another. At that point the learner meets the teacher, and education occurs. In my view, any actions aimed deliberately and primarily to help learning as already defined, may be

called teaching. Ministers of religion and librarians are often teachers, but so occasionally are garage mechanics and physicians. Think for example of the deliberate, planned, learning and teaching occuring when a nurse instructs a new mother on the care of her first baby, or when a minister visits the family of a dying parent.

But what if the young mother or grieving children turn to a library in search of information and advice, or decide to watch a series of television programmes on the subject of their concern, or subscribe to the Open University courses in "you and your baby" or "Caring for older people". It is critical for an understanding of self-directed learning to appreciate that teaching - " actions aimed deliberately and primarily to help learning " - does not have to be personal, individual or face to face. The meeting of learner and teacher to which I referred does not have to be a physical meeting, but rather, as the saying goes, a "meeting of minds". In this sense a person can teach by writing a book, producing a radio or television programme, or contribute to writing a correspondence course. With the broadcast media in particular it is not always easy to distinguish a teaching program from one that is entertainment, and with regard to the same difficulty in the printed medium there was recently an article in Teaching At A Distance, "Why can't a unit be more like a book?" (Jeffcoate 1981). The test must focus on the goals of the book or programme, since in an educational program all other goals are secondary to achieving learning. The goal of learning should be clearly intended, and receiving first priority - with the contents of the programme aimed at that goal to the subordination of all others.

So, in education we have deliberate learning and deliberate teaching, and an educational transaction occurs when learning programs and teaching programs are brought together. This meeting might be face to face, with the medium of communication the human voice, or it might be at a distance, conducted across both space and

time by print or electronic media. This is distance education.

The effectiveness of distance education is determined by a complex interaction of variables, which include learner variables, teacher variables, subject variables, and communication variables. This last includes the variables of dialogue and structure, with a minimum of both in the more distant forms of educational transactions. A teacher who teaches through a communications medium which permits easy and frequent interaction with the learner is less distant than the learner and teacher who communicates through, for example, a one-way medium like the radio. This is the critical variable of dialogue. The other critical variable is structure. The teacher who prepares a teaching program aimed at only one particular learner is able to tailor, organise, or structure the program to meet the learner's specific needs and interests in a way that is quite impossible if the program is prepared for a million viewers, listeners, or readers. These are the two critical factors which in combination lie at the heart of all educational transactions. I believe they should be used as the basic concepts for analysing and organising distance education, because if there is dialogue and no structure the teacher can adjust to the learner's intellectual abilities, physical state, cognitive style, and emotional needs. In particular teaching can be organised according to the learner's own learning program. Where there is no dialogue and there is a high degree of structure, there can be no negotiation or consultation about program plans, and the learner must follow the teaching program exactly as it is presented.

The self-directed or autonomous learner

There is an alternative. Learners might be sufficiently confident and competent to design learning programs alone, and draw from a teaching program or several programs only those parts which are appropriate for their goals. It is not uncommon in educational institutions for teachers to plan and prepare programs apart from the learners they expect to use them. It is less common in schools and colleges for learners to prepare learning programs apart from teachers - or indeed to prepare their own learning programs at all.

It is NOT uncommon for adults, outside educational institutions to plan, implement and evaluate their own learning. This is autonomous, or self-directed learning.

A number of scholars, (notably Malcolm Knowles and Robert Boyd in U.S.A.) have described autonomous learning as especially characteristic of learning in adulthood. Since children have a self concept of dependence, it is natural for them to look to adults, including teachers, for reassurance, affection and approval. They are usually willing to follow a teaching program, regardless of its congruence with any learning programs of their own, merely to win the approval and affection of the teacher. Adults on the other hand have a self concept of independence. In most aspects of their everyday lines they believe themselves capable of self-direction and they are generally capable and willing to be self-directed in their learning also. (Knowles 1970; Boyd 1966)

In institutional programs of education we can expect to find three kinds of adult learner. We will find the self-directed learners who have decided the teaching programs of the institution meet their learning goals. It is possible that only part of the programme meets a person's goals, and he/she might drop out before the end, might not

submit certain assignments, and in other ways might be a somewhat awkward member of a "class", or a tutorial group Such persons though are in the position of customers who are buying a service, they are well in control of the educational program and should give us no cause for real concern. Other members of the tutorial group, or other distant learners in a distance education institution, are the learners who are motivated by need for a degree or some other formal accreditation which can only be obtained by following the teaching program offered by the institution, although the teaching program might not fit the learning program of the students in the course. Such students are not engaged in an educational program, but merely undergoing the formalities associated with certification. Though not self-directed learners, they are self-directed in pursuit of their non-educational goal. Finally there are students who have neither a learning program, nor need for certification, but who use the educational institution to satisfy an emotional need for dependence. They need affection, reassurance and approval, and have learned in school to win this from their teachers. The adult who engages with a teaching program with the intention, not of satisfying a learning need, but of winning the affection of the teacher, has reverted to the habits of childhood. The teacher who tries to induce learning by playing on such emotional vulnerability rather than by meeting the learning needs of the learner, is reinforcing the learner's emotional immaturity, and abusing the position of educator of adults. It is a trap which many teachers fall into, as they have usually very little training in the education of adults, and have much more experience of teaching children; and many adults WANT to be dependent. In schools many teachers are careless of the obligation to assist children to become self-directed in learning, so it is very common, as Knowles has pointed out, to leave school adult in very other way, but still dependent, or at least retarded in independence, as a learner.

There is cause for anxiety in this regard in the counselling given in some of our distance teaching institutions. We

must be careful that in our legitimate desire to give emotional support (perhaps we might say "first aid"), to students in distress, we do not reinforce their dependence on us. Perhaps we secretly, or unconsciously enjoy the status of parent which such dependence gives us. This is not compatible with the role of educational counsellor, and our first priority should be to reduce dependence and encourage the student to become self-directed. The adult learner is entitled, as Boyd explains in his "Psychological definition of adult education", to

> "approach subject matter directly without having an adult in a set of intervening roles between the learner and the subject matter. The adult knows his own standards and expectations. He no longer needs to be told, nor does he require the approval and reward from persons in authority."
> (Boyd 1966)

This is fully autonomous or self-directed, and adult learning. It is the learning of the person who is able to establish a learning goal when faced with a problem to be solved, a skill to be acquired, information that is lacking. Sometimes formally, often unconsciously, self-directed learners set their goals and define criteria for their achievement. They know (or find out) where and how and from what human and other resources to gather the information required, collect ideas and practise skills. They judge the appropriateness of the new skills, information and ideas, eventually deciding if the goals have been achieved, or can be abandoned. And in all this they use teaching programs of all kinds. It is a phenomenon of our Euro-American culture, which has been exported around the world, a consequence in part of our inability to conceptualise more broadly, and also our reluctance to challenge our institutions, that our schools and universities are generally neglectful of learning programs, and preoccupied with sustaining and studying teaching and the work of professional teachers. Although education is about both learning and teaching, educational institutions have focussed too much and for too long on

the latter, on TEACHERS' INTENTIONS, to the exclusion, or at best subordination, of the equally relevant side of the educational relationship, INTENTIONAL LEARNING. Self-directed learning, if considered at all, is regarded as a careless and casual activity on the periphery of the educational field, hardly worthy of systematic study or major support. One result of this neglect is that educators and their institutions grossly underestimate the numbers of people in education and the size and nature of the market for educational services. In U.K. estimates of participation in adult education vary from 15% to 22% (ACACE 1982) of the total population. In Canada it is about 20% (Tough 1971). In the U.S.A. the first national study of adult learning, by Johnstone and Rivera in 1962, found 15% population were involved in institutionalised education. With some surprise they noted an unexpectedly large incidence of what they could only call "independent self-study". This was deliberate and planned learning reported by interviewees who did not use professional teachers or courses, classes or educational institutions (Johnstone and Riviera 1965).

Johnstone and Riviera concluded that this was a widespread though previously overlooked form of adult education, and their discovery set off a wave of interest in what became known sometimes as independent learning, sometimes as self-directed learning.

One of the most important empir.. tudies of this self directed kind of learning was Allen Tough's research in Canada. He focussed his attention on the ways in which adults plan their own learning, and then went on to investigate how they actually 'teach themselves', including ways in which they obtain advice and help from other people. Although Johnstone and Riviera had been surprised at the extent of self directed learning they encountered, there were educators before Tough who had described, theorized, and hypothesized about the phenomenon. Tough's achievement was to define self instruction in measurable and, therefore, researchable terms, and to begin and maintain an extensive programme

of empirical research. He defined self-instruction as 'a series of related episodes adding to at least seven hours. In each episode more than half a person's total motivation is to gain and retain certain fairly clear knowledge and skill or to produce some lasting change in himself' (Tough, 1971, p.6). Tough first conducted in-depth interviews with 66 adults, probing to help them recall their learning during the year before the interviews, and to remember how they had set about learning. From this and many subsequent studies in 8 or 9 countries (Hiemstra and Penland 1981; Tough 1976; Coolican 1974) the following picture of adult learning has emerged:

1 That learning in adulthood is very common. About 90% people could recall at least one major learning effort in the preceding 12 months. The typical person conducted five distinct projects taking an average 155 hours each. It is not only the academic, or the eccentric, or the attender at formal classes, who is an adult learner. Almost every adult undertakes one or two major learning efforts every year, with as many as eight such projects being common.

2 Most adult learning is self-motivated, either to achieve some practical objective, (75% says Tough) or for interest, curiosity or enjoyment, but not usually for a degree or certificate. The most common reasons for learning are associated with people's jobs, homes, families, sports and hobbies.

3 Most learning is planned by the learner who seeks help and subject matter from a variety of acquaintances, experts and printed resources. Only some 20-30% of learning relies on professional educators. 70% are planned by the learner alone.

Before this research, most educators paid little attention to self-directed learning. They concerned themselves with those adults who came to classes and courses, and assumed that since the majority of adults weren't

interested in what was offered there, that they weren't interested in learning itself. Following Tough, there is now a greater willingness on the part of educators to find out what adults are interested in learning, and to provide help to this self-motivated, self-directed adult learning. This is a highly significant change in emphasis, for the 'market' for adult education is virtually the whole adult population. But, also significant, the teaching approach which best meets the needs of these learners is not one of control and direction but one that is helping and responsive. As pointed out by Hiemstra and Penland (1981)

> "Even though the learner protects a personal control and pacing of the learning project, the constraints and opportunities of the environment cannot be ignored. Support requirements are real and consist of the numerous helping sources consulted by the learner during project development and completion."

These sources include tutors; friends and relatives; travel. They also include what I would call teaching at a distance through books, newspapers, magazines and newsletters, radio, television, films, tapes, discs and home computers.

"Why do people like self directed learning?" asked Hiemstra and Penland, and their respondents answered:

> "I like my own way of learning and speed of going about it."

> "I wanted to keep the learning strategy flexible and easy to change."

> "I want to put my own structure on the learning project rather than wait for a course."

Hiemstra and Penland comment, "Educators may increasingly want to take into account this growing need of many people for more control over the learning enterprise." Distance educators I would add are well qualified to

work in this area.

For the remainder of this paper I want to look at three key questions about self directed learning and distance education. They are:

1. What are self directed learners interested in which distance educators might teach?
2. What are the implications of self directed learning for the organisation of distance education?
3. In systems like the FernUniversität and the Open University, what changes in teaching strategy might we make to accomodate the needs of self directed learning?

What are Self Directed Learners Interested in Learning?

The variety seems almost infinite, but the majority of learning (76% according to Hiemstra and Penland) is for some practical purposes, to do with the home, hobbies, crafts, sports and recreation. There is considerable learning connected with work, amongst professional people especially, and also in topics about interpersonal relations. Only some 7% is academic learning, and only 1% is learning for certification.

Especially interesting in my opinion are the learning needs which arise as a consequence of each individual's personal development through the various life stages, which have been identified by developmental psychologists. Psychologically speaking, the years of adulthood are years of ever increasing individuation. In other words, as one gets older one becomes more peculiarly oneself, and more unlike other people in one's perceptions, interests, attitudes, ways of thinking, perhaps even one's appearance. Every person is a unique being, growing in his or her own way, in a continuous state of change from the primitive, most global, condition

at conception to the most highly differentiated state and the most fully developed self at the time of death. As we all experience birth, adolescence and death, we also experience other though less dramatic, transitions throughout adulthood. The research evidence is by no means complete, but beginning with Charlotte Buhler's work in Germany in the 1930s there have been a number of important studies, including those of Erikson, Neugarten, Havighurst and Kuhlen, and there is considerable agreement about the general nature of the main stages of adult development. A good summary will be found in Cross (1981). The findings of these researchers have two extremely important implications for distance educators. First, we are becoming aware of the learning needs which accompany such developmental tasks as becoming a parent, or facing the difficulties and opportunities of mid-life change (Knox 1979). "Readiness", says Cross, "appears to be largely a function of the socio-cultural continuum of life phases. The implication is that educators should capitalize on the 'teachable moments' presented by the developmental tasks of the life-cycle" (Cross, 1981, p. 238). For a summary of life-cycle phases, see Appendix A.

The table indicates a vast area of adult learning needs which might form the basis of an extensive range of teaching programs. The second implication of this research is particularly significant for distance educators. It is apparent that the process of individuation of self means that the psychological context in which any person encounters any of these transitions will be different from that of anybody else. Paradoxically life's transitions are common to all, yet experienced differently by each individual, and in turn contribute further to the uniqueness of each individual. Learning to cope with, and grow through each life stage is different from each individual, and educational programs to aid such learning must be designed to allow individuals to meet their particular needs. In practice this is best done by a combination of self directed learning

and a wide range of teaching programs, a range so wide it can only be accessed through distance teaching.

Preparing programs of this kind is one of the aims of the Open University's Centre for Continuing Education. This part of the University produces courses, and packs of teaching materials designed to be used without tutorial support (i.e. more distant teaching). These teaching programs are aimed 'to meet the learning needs of individuals at various stages on their lives in their roles as parents, consumers, employees and citizens, in the context of their family, workplace and community'. (J Calder and N Farnes, quoted by Lambers and Griffiths 1983)

Some of the subjects on which these distance teaching materials have been prepared are:

The First Years of Life: A short course about pregnancy and the first five years of life.

The Pre-School Child: A short course about children from two to five years of age.

Parents and Teenagers: A short course about the years of adolescence.

Planning Retirement: A short course about planning and coping with retirement.

Energy in the Home: A short course about domestic and commercial use and conservation of fuel.

Consumer decisions : A short course about budgeting and money management.

Caring for Older People: A short course for professionals and non-professionals who look after older people.

Packs of materials on these subjects, or sometimes on

particular topics in these subjects are produced by selecting and structuring the relevant parts.

What are The Implications of Self Directed Learning for the Organisation of Distance Education Systems?

This question can be discussed with regard to both learning in life cycle development as it has just been introduced, and with regard to more established and better understood academic programs.

With regard to life cycle learning, we have suggested that what any particular individual needs to learn at any stage of the life cycle is very specific to that person, so each person must choose what to learn, and also choose from the immense range of teaching programs. A distance system that took such learning very seriously would give adequate human and financial resources to establishing a sub-system between the course production centre of the institution, and the general population of self directed learners. The purpose of this sub-system would be to give assistance to each individual in planning an educational program, in particular to help individuals to analyse their own immediate personal and social situations to decide if the need is for learning, and if so in what area, and using what teaching programs. We want a system something like the network of general physicians in the health sphere, people to whom one has access on those occasions when one needs advice or help with what is normally a self controlled process, in the one case of maintaining health, in the other of learning. An advisor is needed who is part of no course structure, and preferably part of no institution. The advice should not be merely to take this course or that, but together with the learner - to choose this book, that tutor, this broadcast, that visit and project, so each learner builds a personal program aimed at his

particular personal learning goal. Articles in Teaching at a Distance which have at least started the debate on this subject include those by Farnes and McCormick (1976) Watkins (1976) Moore (1980), and Williams, Calder and Moore (1981). A major report on the subject in Britain, 'Links to Learning' (ACACE 1979) advocated the use in such a system of both full time professional counsellers and part time volunteers, and suggested that such counselling could be centred on the public libraries. Neither within the Open University, nor in Britain, or any other country, have funds been found to set up a proper nation-wide comprehensive adult learning advisory service. There have been several small scale experiments, several of which have been reported in Teaching at a Distance by Eagleson (1977), Murgatroyd and Redmond(1978), Vickers and Springall (1979) and Butler (1981). Local library services in Britain often prepare directories of institutions in their area which offer teaching programs and a national computer based bank of such programs is soon to be established. These services only give the enquirer information about courses though. They do nothing to help individual goal determination, or finding resources other than courses. Setting up a more comprehensive network will, I suspect, have to wait for a major political decision and that won't come until there is a more widespread understanding of the implications of a workless society.

The other many implications for our distance education systems of self directed learning cannot be explored any more fully here, but I would like to mention at least the following:

(1) In our training of staff, especially tutors and course writers we must emphasise self directed learning, and look to staff to prepare courses, and to tutor courses, which give more freedom to learners to be self directed.

(2) Tutoring resources and even course production resources might be redeployed so they are available on a demand only basis. Instead of mailing all the course materials to every student, for example, it is not conceivable that students, after consulting with tutors, could call in for a selection of course items, relevant to their own interests?

(3) We should de-couple our teaching function from the accreditation function. Accreditation should be given in exchange for evidence of knowledge or skill wherever this is acquired, not in exchange for surviving a teaching program. This is demeaning to the vocation of teacher, and repels many adults from employing our services.

Teaching The Self-Directed Learner

If adult learners are willing and able to be self directing in study, how might the educational institution, especially the institution of distance education, modify its teaching in order to give each learner the chance to exercise autonomy?

Malcolm Knowles, in writing about 'andragogy', the art and science of helping adults learn has made the following suggestions:
(Knowles 1970)

(a) Provide a physical climate (if meeting face to face) and more important, a psychological climate that shows the learner is accepted, respected and supported, and in which there exists a spirit of mutuality between teachers and students as joint enquirers.

(b) Put emphasis on self diagnosis of needs for

learning. This means, giving the learner a way of construction a model of the competences or characteristics aspired to - whether it be a good parent, good teacher, good mathematician etc; a way of diagnosing the present level of competence, and of minimising the gap between the desired level of competence and the present level.

(c) Involve the learner in planning a personal program based on this self diagnosis, turning the needs into specific learning objectives, changing and conducting learning experiences to achieve these objectives, and evaluating the extent to which they have been achieved.

(d) The tutor must act as a resource person, a procedural specialist, and a co-inquirer, and not try to make the other person learn.

(e) The tutor helps the learner in a process of self evaluation. This means learners gather their own evidence about progress towards the educational goals.

(f) Place great emphasis on techniques that tap the experience of adult learners. There must be a distinct shift of emphasis away from transmittal techniques such as the lecture and assigned readings towards discovery learning especially in field projects and other techniques which give the learner a chance to be actively involved.

Several attempts have been made to apply ideas like these in higher education in educational programs in which there is both face and distance learning. In the Empire State College in U.S.A., in St Francis

Xavier's adult education program in Canada, and in the School for Independent Study at the North East London Polytechnic in UK, in all these institutions, individual students can earn degrees by designing their own learning program, implementing and evaluating it. The North East London Polytechnic states:

> "We have dispensed with pre-arranged syllabuses and externally imposed assessments and have made exclusive use of students' own statements. These statements cover students' own self assessment of interests, abilities and achievements at the outset; their long term aspirations and more immediate educational goals; their detailed plans for learning and the details of their terminal assessment." (Stephenson 1983)

Similarly in the St Francis Xavier program, students must identify their own learning needs on the basis of an examination of previous performance and competence and present aspiration, and describe the learning needs and a set of behavioural objectives with a plan for achieving those objectives.

> "A student may choose to work on his study program independently or as a member of a group. His learning objectives, his plan for achieving them and for evaluating his success are to be specified in writing. Faculty members will discuss the terms of the learning plan with the student. The final agreement between student and faculty will contain a systematic description of the student's learning objectives, the action research activity which he will follow to achieve these objectives, the type of help he requires from the university and a set of deadlines for achieving the various tasks." (St Francis Xavier, Calendar 1972)

In both the institutions referred to where the responsibility for decision making has been passed to the student, in practice the program planning process is conducted face to face. Among St Francis Xavier students implementation is very often in the student's own milieu, away from the teachers, and help is given at a distance in correspondence and by telephone (Moore 1976).

Even if we wanted to, is such an approach possible when distance is greater, as in for example the FernUniversität and the Open University?

In what I consider to be the most exciting chapter in 'Distance Education', Ljosa and Sandvold have made the best attempt so far to analyse the various ways in which students might be enabled to exercise freedom of choice within the didactical structure of a correspondence course (Ljosa & Sandvold 1983).

Ljosa and Sandvold tell us that in Norway a recent Adult Education Act insists that for an educational institution to receive public support it is

> "required to have an educational practice which secures the influence of the course participants, both as regards the form and the contents of the course".

Also there is a new secondary school curriculum which sets up the curriculum on two levels:

> "(1) A commoncore of compulsory study material that all students are required to work on,
>
> (2) Certain frames for the optional study material from which the class or the individual student can choose. This choice can be made according to special interests, qualifications or needs, or according to special conditions in the local milieu of the school."

Ljosa and Sandvold comment:

> "In a traditional correspondence course the course material itself is supposed to be studied by all the students. The courses are rarely organised in such a way that the students are encouraged and practised in making personal choices based on e.g. their own qualifications, interests or their own local milieu. Very few students are able, themselves, to emphasise certain parts and work less seriously with - or completely skip - other parts of the study material. In practice this means that few students make personal choices within the course material. Most of them accept that the course developer has chosen for them, and go through the material without letting their own background consciously influence their work." (Ljosa & Sandvold 1983)

Then they describe some of the choices which it is possible for students to make in a correspondence course. These include the freedom to choose materials on different levels, to choose material in accordance with personal interests, to select material from supplementary reading, and to find material and working projects in the local milieu. The student, they say can be placed in the centre of the learning process.

> "Instead of letting the course material choose for him/her the student himself/herself will be the active part, taking the initiative in the choices that have to be made. Through a long series of personal, conscious choices the student will make his/her own course from the basic material that the correspondence course offers". (Ljosa & Sandvold 1983) (My emphasis)

This is exactly what we expect self directing learners to do. It's what the inventor described by James and Wedemeyer (1959) recently cited by Holmberg (1983) did, and it is to encourage this that the Open University has tried to promote 'informal use' of continuing education materials by producing a series of 'packs' rather than highly structured courses.

A Personal Experience

For most of us, the main problem is how to bring into more formal, more academic distance teaching, the kinds of freedoms mentioned by Ljosa and Sandvold and Knowles and experiments in the undergraduate study programs at St Francis Xavier and North East London Polytechnic.

For the past two years I have been primarily engaged in the development (and done a lot of the writing) of a new Open University third level course called Education of Adults (Open University 1984). In this the course team set out to give the student as much autonomy as our system would permit. It is not possible, as in the low-distance

face to face examples cited earlier to start afresh with each student saying in effect, let us help you diagnose your learning needs in this academic area, and then tailor make a programme with each learner. Why? (1) In part because such activity is labour intensive on the side of the tutor. Our system will only allow about 10 hours of tutorial time in a total student time of about 200 hours. The student could of course do a lot on his own, and perhaps we could have put more of our resources into facilitating such analysis at-a-distance. (2) A more serious impediment to greater student autonomy was the demand of the O.U. production and academic system, the production system insisting on highly structure printed materials and academic colleagues being conditioned to provide them. Too extreme a move to learner autonomy was just not acceptable to "the system".

Nevertheless, though far from the highly autonomous course I would like to see, this course shows some of the features mentioned by Ljosa and Sandvold, and a few of those mentioned by Knowles. The following are some of these features:

(1) Psychological climate. At the beginning of the course I emphasised to the student the importance of his choosing and the importance of his experience. The words used are shown in appendix B.

(2) Emphasis on self diagnosis: We made some progress in this direction, but it is very unstructured and perhaps not very clear and its success will depend very greatly on the tutors. Students have been advised to contact the tutor early in the course to give information about "the advice and assistance that will be necessary", including information about their employment, and other experiences which could be relevant to their project in the course. The first TMA is relevant to this also, consisting of an account of the student's experiences as an adult learner. This is an area which we should have done better, and where more work is needed.

(3) Plan a personal program. We have replaced half the assignment requirement with a learning project - we were given to understand the assessment committee would baulk at more than 24 % credit being given for a project. Also there were members of course team who wanted to ensure that what wasn't studied for the project was "covered", i.e. the non-autonomous influence prevailed to some extent. There is "core" material, but the emphasis is on a great deal of supplementary reading from which the student is invited to choose what to use and what to skip.

(4) The tutor as resource person. As seen in the appendix, the tutor is introduced as one with whom the student should "enter into a relationship of mutual enquiry", and tutors are asked to be "non directive" teachers.

(5) Evaluation. The following statements have been made to the student:

"When discussing your project idea and outline it is important to establish with your tutor the criteria against which the work will be assessed... As a result of discussions with your course tutor you should be aware of what is an appropriate presentation to obtain a pass grade at the different levels. The final grade awarded will be the subject of further discussion between you and your tutor."

Concerning the examination, since again the O.U. system would not permit us to dispense with one:

"In line with the course's general emphasis on learner participation learning from experience and learner autonomy, the assessment procedures aim to be as non-prescriptive and non-directive as possible. The examination will consist of two general open ended questions and two or three specific questions. All of these questions will give you a chance to describe and discuss your own experience as a student in the course as well as the contents of readings, Blocks, broadcasts etc. Factual recall will not be required and the course readers may therefore be brought into the examination room." (Open University 1984)

(6) Emphasis on students' experiences. This is shown throughout the course in activities which invite students to reflect

on their own experiences; in the project which aims to encourage learning by experience, and by the reflexive nature of the course; this means students are asked to note and use their own behaviour and feelings, and interactions with the tutors and students and the University, as data about learning, teaching and education. So the whole course is an experience in adult education as well as being about adult education.

In the course I have described it is assumed that each student has, or can construct, a learning program within the general academic field defined by the course. An attempt is made to bring together both the course team's teaching program, and each learner's learning program. In this educational program the tutor is an essential mediator of the teaching and learning programs. The course operationalises the model of education which was the subject of the earlier part of this paper. I suggest it falsifies those models of distance education which describe it as a flow of information from teacher to student, with the tutor treated merely as a remedial trouble-shooter. Such models are adequate to describe a minority of distance education programs, but cannot be applied universally, nor even generally, because in practice many students exercise self direction even when the distance teaching program is not actually designed to allow it. As project based distance teaching courses become more popular, the more powerful model will be the one which accommodates self directed learning as well as student directed teaching.

Technology in the Service of the Individual

I would like to end by asking you to turn away from questions about program design, program content, the structure of our systems, and all the other rather technical matters we have been discussing, and consider the purpose of all this activity. Education is concerned with issues more fundamental than how people learn, how they are taught or even what they are taught, for what and how they are taught are derived from the values and aspirations of society itself. Those who seek to influence

and change our society, or indeed to keep it as it is, act upon education to serve the ends of one or another particular set of values. They, and whether we like it or not, we who practice in education are guided by value judgements about the nature of man, the nature of God and in particular about the nature of man's freedom of thougnt and action. To what extent, if at all, are our futures controlled by supernatural force? To what extent, if at all, are we subject to immutable forces in history and in society? To what extent, if at all, is each of us free to direct the present and to shape the future? Our every action in education is guided by our personal responses to these questions of freedom and authority, and our every action in turn contributes to establishing and maintaining within our own circles of influence, the values which those responses reflect.

Distance teaching, having the power associated with industrialisation in education can be a more efficient and effective force for achieving either enhanced learner autonomy or greater control by teachers and educational institutions. In distance education we are faced by the same value judgements about freedom and control as were our predecessors in more simple forms of education, but because of the impact of modern communications media and large scale delivery systems, the consequences of our choice or indeed our failure to choose, are more wide reaching.

It is important that those of us who believe in the importance of individual freedom be on our guard. It is important that we not only design and teach good programs, but that we think, write and argue for learner autonomy, to ensure that distance education works in the interests of learners, not of teachers alone, nor institutions, nor is used as a means of state control and social direction. Perhaps most important we have to play a part in administration and management, which is not always very

attractive to persons whose first wish is to be helpers of other people. It is very important at this particular time as a generation of administrators and managers gives way to a new one. The previous generation worked in distance education when it was regarded by the world outside with suspicion and hostility or at best was ignored. The leaders in our field were men and women with a vision that modern technology could be used to free people from constraints on their learning - the constraints of geographic isolation, being housebound, being disabled, having to hold down a job and therefore not able to study. Their ends were human, though the means they employed were technological.

Distance teaching has become successful, and I see attracted to its management many people of a different kind. They are people who are more motivated by self-advancement then by a sense of service to others. They put themselves, their organisation and the machine before the learner, if they think of the learner as a person at all. These are people who a decade ago would have made their careers in business, or government, or perhaps in the administration of a "respectable" area of education. They are a formidable and threatening new breed and we must be alert to defend against them those human values we believe in - especially the values of learner freedom, individualism and self-direction.

APPENDIX A

The following summary of the life cycle research theories of eight of the principal contemporary investigators in this field is provided by Cross (1981).

Table Descriptions of life-cycle phases

Phase and age	Marker events	Psychic tasks	Characteristic stance
Leaving home 18-22	Leave home Establish new living arrangements Enter college Start first full-time job Select mate	Establish autonomy and independence from family Define identity Define sex role Establish new peer alliances	A balance between 'being in' and 'moving out' of the family
Moving into adult world 23-28	Marry Establish home Become parent Get hired/fired/quit job Enter into community activities	Regard self as adult Develop capacity for intimacy Fashion initial life structure Build the dream Find a mentor	'Doing what one should' Living and building for the future Launched as an adult
Search for stability 29-34	Establish children in school Progress in career or consider change Possible separation, divorce, remarriage Possible return to school	Reappraise relationships Re-examine life structure and present commitments Strive for success Search for stability, security, control Search for personal values Set long-range goals Accept growing children	'What is this life all about now that I am doing what I am supposed to?' Concern for order and stability and with 'making it' Desire to set long-range goals and meet them
Becoming one's own Person 37-42	Crucial promotion Break with mentor Responsibility for three-generation family; i.e., growing children and aging parents For women: empty nest; enter career and education	Face reality Confront mortality; sense of aging Prune dependent ties to boss, spouse, mentor Reassess marriage Reassess personal priorities and values	Suspended animation More nurturing stance for men; more assertive stance for women 'Have I done the right thing? Is there time to change?'
Settling down 45-55	Cap career Become mentor Launch children; become grandparents New interests and hobbies Physical limitations; menopause Active participation in community events	Increase feelings of self-awareness and competence Re-establish family relationships Enjoy one's choices and life style Re-examine the fit between life structure and self	'It is perhaps late, but there are things I would like to do in the last half of my life' Best time of life
The mellowing 57-64	Possible loss of mate Health problems Preparation for retirement	Accomplish goals in the time left to live Accept and adjust to aging process	Mellowing of feelings and relationships Spouse increasingly important Greater comfort with self
Life review 65+	Retirement Physical decline Change in finances New living arrangements Death of friends/spouse Major shift in daily routine	Search for integrity versus despair Acceptance of self Disengagement Rehearsal for death of spouse	Review of accomplishments Eagerness to share everyday human joys and sorrows Family is important Death is a new presence

Sources: Chickering and Havighurst, 1981; Gould, 1972; Lehman and Lester, 1978; Levinson and others, 1974; McCoy, Ryan and Lictenberg, 1978; Neugarten, 1968; Sheehy, 1976; Weathersby, 1978.

APPENDIX B

Extract from Block A of "Education for Adults"
Open University (1984)

B A view of the course

Given the very broad view of the field which I have described above, the Course Team has set out to do two things. First, we have assumed that adults want to exercise responsibility and choice in their learning as they do in other matters. Therefore, we have tried to arrange this course to give you maximum freedom to decide which parts of the field to concentrate on, exactly which resources you will use, when and where you will learn, and even how much you will learn. Second, it should be emphasized that merely passing on information is, for us, an unsatisfactory approach to teaching about adult education. As noted above, there is no certainty about adult learning, teaching, and the effects of adult education, and therefore it is not possible for us to treat our understanding of the field as an inert body of knowledge which we 'have' and can pass on to you. On the contrary, we believe that much of the experience and, therefore, the knowledge which is needed to understand adulthood, adult learning, and teaching lies with you, a learner in this course, and in many other contexts, and almost certainly a 'teacher' of some sort in other relationships, as I will soon demonstrate.

Because we believe so strongly that adult learners should participate in directing their learning, and in learning from their own experience, we have replaced some of the conventional Open University Tutor Marked Assignments with a learner directed project. At the end of this Block you will be asked to settle on a particular area of inquiry which you will pursue as you study the remainder of the course. Perhaps you have a particular interest which will make this

an easy decision, in which case you should find Block A useful in suggesting different approaches to your chosen area of inquiry. If you have no special interest, I hope that ideas will present themselves as you work through this Block.

I hope too that you will enter into a relationship of 'mutual' inquiry, with your tutor, a not uncommon relationship in adult education, but uncommon 'at a distance' because it is so difficult to organize. This means that you will look to the course, and to your tutor, to help you formulate your own questions about adult education, and that you will seek answers not only from the course, but also from your own experiences and your own experimentation.

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