

## Chapter 1

# *Distance learners in higher education*

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### Introduction

Only recently have learners become a major focus of study for the field of distance education. During the 1960s and '70s, as the field expanded and developed beyond the limits of correspondence study, most research efforts were centered on establishing the effectiveness and, it was hoped, the credibility of this form of education. When several decades of research provided overwhelming evidence of distance education's effectiveness as a delivery method (Moore and Thompson, 1997), educators began adding other, more student-focused questions to their research agendas, and the characteristics of students, particularly in relation to achievement in distance programs, became a major focus of study. This change in focus, which began with an emphasis on distance learners "as a sample population with group characteristics, i.e., flat, unchanging individuals" (Herrmann, 1988, p. 5), has expanded during the 1990s to accommodate a perception of the distance learner as a "dynamic individual" whose characteristics often change in response to both educational and life experiences (Gibson, 1992).

## Distance Learners in Higher Education

The dynamic nature of the individual learner is one obstacle to constructing a generic “profile” of the distance learner in higher education; the dynamic nature of the field of distance education is another. Increasingly, distance educators are describing a phenomenon variously referred to as “mainstreaming” or “convergence,” that is, the gradual blurring of the distinction between conflicting “campus-bound” and “distance teaching” paradigms (OECD, 1996; Miller, 1997). One obvious consequence of the evolution to complementary “campus-based” and “distributed learning” paradigms (OECD, 1996) will be the concomitant blurring of the distinction between distance students and traditional students, a result that will have profound — but as yet unidentified — ramifications for research on students who study at a distance.

The selection of studies referred to below, although not exhaustive, represents a variety of perspectives on students in distance higher education. It is intended not to provide a static profile of a “typical” distance learner, but rather to offer an overview of both a dynamic population and the dynamic perspectives that distance educators are bringing to the study of those they serve.

### Demographic and Situational Characteristics

As Holmberg (1995) points out, there “is no evidence to indicate that distance students should be regarded as a homogeneous group”; however, many distance students do share broad demographic and situational similarities that have often provided the basis for profiles of the “typical” distance learner in higher education. Characteristics included in such a profile have varied, but generally have reflected some combination of demographic and situational variables such as age, gender, ethnic background, disability, location, and life roles.

*Age.* Although the methods of reporting student ages vary from study to study, researchers agree that distance education students are, on average, older than typical undergraduate students. For example, a study of students enrolled in telecourses at four representative (urban, suburban, and rural) U.S. higher education institutions reported a median age of 36 (Hezel and Dirr, 1991). Dille and Mezack (1991) found that the average age of students enrolled in telecourses at a southwest (U.S.) community college was 27, while 80.3% of the students in Gibson and Graff’s (1992) study of students in University of Wisconsin System Extended Degree programs were between 25 and 45. Robinson (1992) reports that almost

## Distance Learners in Higher Education

half of the students enrolled in the Open College of Ryerson Polytechnical Institute in Ontario are between 31 and 46 years of age, and Wong (1992) notes that 83% of the distance education students at Memorial University of Newfoundland are 19 years of age or older. Finally, Holmberg (1995), citing studies from three decades, states that "the 25-35 age group seems to be the largest in most organizations." (p. 12)

*Gender.* Most studies of distance learners in North American higher education report that more women than men are enrolled in courses delivered at a distance. In telecourses at the four institutions examined by Hezel and Dirr (1991), 61% of the students were women. This finding is similar to that of Gibson and Graff (1992), who report that 60% of the students in their study were women. Dille and Mezack (1991) also found that women outnumbered men in the telecourses they examined; in their study, 71.5% of the respondents were female, a result comparable to that noted by Franks (1996), who reported that three-fourths of the distance education students at the College of Rural Alaska were female. Researchers studying distance education in Canada have reported similar findings: Robinson's (1991) study of distance students at the Open College of Ryerson Polytechnical Institute found that 77.9% were female, and at Athabasca University, 68% of the students and 63% of the graduates are women (Owen, 1991).

Comparative enrollment of women and men varies considerably in other parts of the world. Eastmond (1995) cites a 1992 study which reported that women outnumbered men in New Zealand and Israel, but that the opposite pattern existed in Britain, Germany, and Spain, perhaps reflecting cultural differences. A more recent report (Taylor and Kirkup, 1994) presents enrollment percentages for women in some of the larger distance education institutions: Open University, United Kingdom (50.0%); Indira Gandhi National Open University, India (26.0%); FernUniversität, Germany (27.4%); UNED, Spain (54.7%); and Open University, the Netherlands (38.0%).

*Ethnic Background.* Most reports in the literature focusing on the participation of students from various ethnic groups are program descriptions, rather than comparative studies. Although research studies occasionally report the percentages of participants from various ethnic backgrounds (e.g., Dille and Mezack, 1991; Pugliese, 1994), they generally do not compare these with the percentages of the same groups within the population of traditional students. As a result, making generalizations

## Distance Learners in Higher Education

about the relative participation of ethnic minorities in distance education is difficult.

However, there is some evidence, largely qualitative and anecdotal, that distance education is a particularly appealing way for students from disadvantaged socio-economic groups to enter higher education. For many of these students, courses and programs delivered at a distance are an accessible avenue for upward mobility. For example, Eastmond (1995, p. 50) reports that all of the students in his study of a computer conferencing distance education program at a college for adult students represented the first generation in their families to obtain a higher education degree. In some cases, distance education "provides an opportunity for people without means ... to advance into more productive, satisfying lives." It can also offer a less threatening alternative to traditional educational structures for disadvantaged students whose earlier experiences in mainstream educational settings were unsatisfactory (Willis, 1994; Eastmond, 1995; Holmberg, 1995).

*Disability.* Keeping statistics on students with disabilities is difficult in the U.S. since federal law prohibits requiring students to identify themselves as disabled on application forms. Paist (1995) estimates that approximately 3% of in-state students enrolled in the University of Wisconsin-Extension Independent Study program have either visual, auditory, physical, or learning disabilities. She predicts that the percentage will increase steadily as more students discover the program's services and as the effects of the Americans with Disabilities Act spread. Vincent (1995) reports that approximately 5,000 of the undergraduates (about 5%) at Open University of the United Kingdom have disabilities; this number is increasing at the rate of about 10% per year, a rate higher than that of the general increase in enrollments. Vincent ascribes this growth to the convenience of home study and the ability of information technology to overcome barriers to learning for disabled students.

*Location.* Traditionally, distance education has attracted students whose geographic distance from a higher education institution discouraged or prevented enrollment in on-campus classes. The students in Gibson and Graff's (1992) study are typical of this group: 77% lived over fifty-one miles from campus, with the majority living between 101 and 200 miles from campus. Recent data on extended campus enrollments in Colorado also reflect this phenomenon with the report that "residents of rural counties enrolled in extended campus courses at substantially higher rates than urban residents" (Statewide Extended Campus, 1996).

However, in many institutions the “typical” distance learner is no longer place-bound. Increasingly, students in close geographical proximity to traditional educational institutions are choosing distance study not because it is the only alternative, but rather because it is the preferred alternative. Hezel and Dirr (1991), for example, found that 56% of the telecourse students they surveyed reported a one-way potential commute of thirty minutes or less, and Robinson (1992) reported that more than 67% of the distance students in his study lived within 50 miles of the Open College. Students’ motivations for choosing distance study even when traditional study is available will be discussed below.

*Life Roles.* In addition to filling the role of student, most distance learners also fill the roles of worker and spouse. A number of studies reporting characteristics of distance learners have documented the extent of this trend. St. Pierre and Olsen (1991), for example, found that 57% of the students in their study worked 40 or more hours a week outside the home. Robinson (1992) reported that among distance education students at the Open College, 83.7% were employed outside the home (62.2% full time) and 58.5% were married. Over 90% of the students in the Gibson and Graff (1992) study were employed (75.8% full time) and approximately 75% were married. In Fjortoft’s (1996) study of a post-baccalaureate program in pharmacy, 78% of the respondents reported working more than 40 hours/week and the majority were married. Among those interviewed by Eastmond (1995) in his study of distance students at Hawks College, all were employed, 90% were employed full time, and 75% were married. These numbers not only illustrate significant differences between distance students and their on-campus counterparts, but also go far to explain the appeal of distance education programs. The convenience and flexibility offered by programs free of the constraints of place — and often time, as well — represent major benefits to learners attempting to juggle multiple adult roles and responsibilities.

The studies cited here and other similar reports have provided the basis for a widely accepted view of the distance learner as one who is (1) older than the typical undergraduate, (2) female, (3) likely to be employed full time, and (4) married. Some researchers in the field have used this profile as the basis for studying the relationship between specific student characteristics and student success in distance education programs.

### Relationship of Demographic Characteristics to Student Success

Research attempting to measure the relationship of particular demographic characteristics to student success — as measured by levels of persistence and/or achievement — has resulted in often contradictory

conclusions. Some studies have reported no correlation between these outcomes and specific demographic variables such as gender (e.g., Dille and Mezack, 1991; Fjortoft, 1996), ethnic background (Dille and Mezack, 1991), or age (Powell, Conway, and Ross, 1990; Gibson and Graff, 1992). Other studies suggest that certain demographic variables, perhaps not in and of themselves but rather as the markers of an accompanying set of generalized characteristics, are related to student success and/or satisfaction.

For example, several researchers reporting a positive relationship between success and students' age (Dille and Mezack, 1991; Souder, 1994) have explained the higher levels of success for older students on the basis of the increased maturity, self-discipline, life experience, and financial responsibility for their educations that are likely to characterize older students. Additionally, older students are more likely to have higher levels of education at the time of enrollment, another factor which has been correlated with success (Dille and Mezack, 1991; Gibson and Graff, 1992).

Higher success rates among female distance education students have been related to (1) the lower proportion of women working full time outside the home, (2) the higher rates at which women access institutional support structures, (3) the potentially higher level of motivation that might operate among women, who more often work in occupational sectors in which career advancement is closely tied to academic upgrading, and (4) the appeal of the distance format to woman who must integrate education into lives characterized by multiple roles (Ross and Powell, 1990; Powell, Conway, and Ross, 1990; Robinson, 1992).

### Affective Characteristics of Distance Learners

Whereas earlier research on learner characteristics focused on demographics and life situation, the last ten years have seen a shift in attention to the affective characteristics of students in distance education programs. However, much of the literature continues to reflect a desire to develop a "profile" — albeit a more comprehensive profile — of the distance learner, specifically in terms of personality type, learning styles, and motivation.

*Personality Type.* Recent research on characteristics of distance learners has frequently focused on personality variables associated with partici-

pation and/or success in distance education programs. As Biner et al. (1995) explain, the term "personality" refers to "the cognitions, the emotions, and the behaviors ... that remain relatively stable across time and situations." Several authors have noted a "cluster of [personality] characteristics" that seem to accompany preference for and success in distance education programs, e.g., autonomy, tolerance for ambiguity, and flexibility (Willis, 1994, p. 54; Eastmond, 1995). Studies providing the basis for this characterization have focused on single attributes, such as students' locus of control or orientation toward self-direction, as well as on more complete personality profiles.

Internal locus of control — the belief that consequences stem from one's own behaviors and efforts — appears to be an attribute of many students who choose to study at a distance, particularly for those who are successful in their programs. A study comparing the personality variables of undergraduate education students enrolled in independent study with those receiving conventional instruction found that the students studying at a distance were more likely to have an internal locus of control than were their on-campus peers (Jonassen and Grabinger, 1988). Dille and Mezack (1991) reported that internal locus of control was positively correlated with success in community college distance learning courses. Alternatively, external locus of control and a related construct, external attribution, have been reported to characterize at-risk distance education students (Dille and Mezack, 1991; Kember et al., 1991). A more recent study by Pugliese (1994) found that, while external locus of control was the strongest predictor for withdrawal/failure, the relationship was not significant.

Another characteristic of interest to researchers is self-directedness, since common sense suggests that students separated from their instructor would benefit from this attribute. Billings (1993) reviewed studies that examined students' orientation toward self-directed learning and self-management. Results were mixed, with several studies suggesting a positive relationship between self-directedness and achievement and several others reporting no relationship between the ability to manage one's own learning and academic success. A study to examine the applicability of the concept of self-directedness to distance learners at the Open College (Robinson, 1992, p. 13) found that students "were not interested in self-directed learning. They wanted explicit directions on how to do the assignments, and for the course designer to select the assignments for grading." The investigator speculates that this lack of interest may reflect (1) the lack of need for such an approach given the

## Distance Learners in Higher Education

highly structured nature of the courses, (2) a perception of self-directedness as too time-consuming, or (3) learners' lack of experience in directing their own learning projects.

Biner et al. (1995, p. 56) found that the personality profile of college-level telecourse students differed considerably from that of traditional students, as reflected in the Sixteen Personality Factor Questionnaire (16PF). Specifically, students in the distance education programs tended to be "more intelligent, emotionally stable, trusting, compulsive, passive, and conforming" than traditional students. Several personality factors were found to predict success in the distance context: self-sufficiency and/or introversion, laxness (i.e., carelessness of social rules), and expediency were all associated with successful student performance.

*Learning Style.* Billings (1993, p. 2) defines learning style as "the way in which a learner receives and interacts with instruction and responds to the learning environment." Most of the research conducted on learning style preferences and distance learners has focused on the apparent effects of particular preferences on student success. Coggins (1989), for example, found a negative correlation between the need for both peer and instructor affiliation and course completion. Dille and Mezack (1991) reported that students with lower means on the Concrete Experience Scale of Kolb's Learning Style Inventory and with higher scores on the AC-CE (Abstract Conceptualization minus Concrete Experience) Scale were more likely to succeed in their telecourses. These results suggest that (1) successful students have less need to relate to others in the educational environment and (2) a less concrete learning style is better suited to telecourse learning.

Another study (Gibson and Graff, 1992) used the Canfield Learning Style Inventory (CLSI) to examine differences between successful and unsuccessful students in terms of learning style preferences and perception of barriers to participation and/or success. Analysis of the four major areas measured by this scale — preferred conditions, content, modes, and expectancy of performance — resulted in significant differences between successful and unsuccessful students (in this study defined as completers and noncompleters, respectively). Results of the study indicated that successful students exhibited lower levels of peer affiliation and higher levels of confidence in their performance and competence, while non-completers exhibited higher peer affiliation and less confidence in their knowledge, skills, and ability to reach their goal of degree completion.



## Distance Learners in Higher Education

Most students' learning styles are characterized by perceptual preferences, that is, preferences for the sensory channels through which they receive information. Although several studies have examined this characteristic of distance learners, none has suggested a preference that characterizes distance learners in general. Most attempts to relate auditory, tactile, or visual preferences to achievement have had similar results, reporting no significant relationship between these preferences and achievement or success (Coggins, 1989; McFarland, 1990; Billings and Cobb, 1992). One exception is a study by Jonassen and Grabinger (1988), which found that undergraduate students electing independent study preferred learning via active or hands-on experimentation.

*Motivations.* Some motivations for studying at a distance can best be understood in terms of the barriers that block students from enrolling in on-campus courses. Thus, many students are motivated to become distance learners because the barrier of geographic distance from the nearest or most appropriate institution makes conventional study impractical. Hezel and Dirr's (1991) study of barriers to on-campus attendance found that distance from campus was viewed as "very important" or "somewhat important" by 75% of the students surveyed; understandably, this factor was more of a problem for students in rural areas.

Being place-bound continues to motivate many students, especially adult students whose life situations make either relocating to the site of an educational institution or even attending a nearby institution impractical. Increasingly, however, researchers are finding that the motivation that comes from being place-bound is being superseded in importance by that which comes from being time-bound.

Of the community college telecourse students surveyed regarding perceived barriers to on-campus attendance, 95% identified time constraints as a "very important" or "somewhat important" barrier (Hezel and Dirr, 1991). This finding is similar to that of Liviertos and Franks (1996), who reported that 82% of students surveyed identified lack of time for on-campus attendance as a very important motivation for enrolling in a telecourse. Factors contributing to the sense of being time-bound include work, family, and community responsibilities (Willis, 1994; *Going the Distance*, 1994; Hyatt, 1992).

To the motivations of access and flexibility already discussed, Willis (1994) adds a third motivation for distance study: attraction to innovative learning environments. For some students, distance learning represents not merely an acceptable replacement, but rather a desirable alternative

to on-campus instruction. Reasons for desiring to be outside the educational mainstream might include negative past experiences with conventional education, preference for independent study, or attraction to a technological environment (Willis, 1994; Eastmond, 1995).

## Goals

Since the majority of distance learners are time-bound adults with multiple roles and responsibilities, it is not surprising that most have educational goals that are instrumental rather than developmental. Among the 2,300 FernUniversität students surveyed by von Prümmer (1990), the three most frequently mentioned goals were work-related. Attaining an advanced professional qualification was mentioned by 84.4% of the students, exposure to new professional perspectives by 80.9%, and gaining specialized knowledge by 78.6%. Goals relating to general knowledge ranked fourth through seventh and ninth.

Robinson (1992) found that most students at the Open College had instrumental goals, such as increased knowledge of a specific content area or performing more effectively in some aspect of their lives. Only three of the twenty students studied by Eastmond (1995) had goals that were personal or academic; all of the others had career development as their goal. Within this career-orientation group, Eastmond identified three categories of degree seekers: "necessity learners," who need a degree to maintain their positions, advance in their current situation, or prepare for a new job; "recareerers/ladder climbers," whose external necessity is not as compelling, but who nevertheless have a goal that will be facilitated by further education; and "rainy day planners," who are using further education as protection against unforeseen contingencies in their current work situation.

Several studies have reported significant differences between men's and women's rankings of goals. Von Prümmer (1990) reported that for women in her study "opening up new areas of knowledge" was the most frequently identified goal; it was chosen by 84.0% of the women, compared with 73.4% of the men. For men, the most frequently identified goal was "higher professional qualification," which was chosen by 85.4% of the men and 82.5% of the women. Further, women more often identified proving themselves and increasing their self-esteem as important goals than did men (63.9% vs. 53.9%). They also reported being more interested in "intellectual stimulation" (74.1% vs. 56.8%) and making up for earlier lack of opportunities (55.4% vs. 45.7%).

## Distance Learners in Higher Education

Among students at Athabasca University, more women than men rated gaining a university degree as highly important (Ross and Powell, 1990). Additionally, more women than men reported studying for self-improvement and intellectual stimulation rather than for higher professional qualifications (Owen, 1991). Robinson (1992) found no gender-based differences in goals among distance education students at the Open College.

### A Dynamic Conception of the Distance Learner

Although the attempt to develop a profile of the distance learner in higher education has broadened beyond demographics to include affective characteristics as well, the goal of a composite representation of the "typical" student has remained largely unrealized. To those looking for a way to easily identify target populations or to design broadly appropriate programs, the elusiveness of this goal is probably disappointing. However, two things are immediately obvious from any more-than-superficial examination of the literature: (1) the distance learner population is — and will continue to be — too heterogeneous to provide a basis for a "typical" profile, and (2) even for an individual learner, any profile must be tentative and dynamic, rather than static.

Although the proportions of students sharing particular demographic and situational characteristics have been high enough to encourage general descriptions of distance learners, they have not been high enough to support development of profiles that can guide the design of uniform programs appropriate for a "general audience" of distance learners. The increasing emphasis within the field on meeting individual needs, and the aforementioned convergence of distance education practice and campus-based instruction argue against both the desirability and the possibility of developing anything approaching a standardized description of — or programs for — *the* distance learner.

A strong case for the tentative and dynamic nature of any profile purporting to represent even an individual distance learner is steadily being developed by researchers in the field. A number of recent studies have examined the changing nature of learner characteristics and have discussed implications for practice. Powell, Conway, and Ross (1990), for example, discuss the interplay of students' predisposing characteristics (those relatively fixed characteristics initially brought to the educational activity), changing life circumstances, and institutional factors. Other

## Distance Learners in Higher Education

researchers have focused on changes in students' self-perceptions as they progress through their programs (Herrmann, 1988; Gibson, 1992, 1996) and on changes in students' willingness and ability to exercise control and/or self-direction (Kasworm and Yao, 1992; Garland, 1994). Understanding of the dynamic nature of distance learner characteristics has profound implications for program design, instruction, and learner support.

### Conclusion

A close examination of the demographic, situational, and affective characteristics of those who study at a distance reveals both similarities common to large proportions of the population as well as a wide range of individual characteristics and, therefore, needs. This growing understanding of distance education students as diverse and dynamic individuals occurs within an educational context increasingly characterized by a focus on providing "learner-centered" education.

The institutional mandate that is emerging from the convergence of these phenomena is one of equity, not equality: to appropriately serve distance learners, institutions must offer programs designed for learners with a wide range of characteristics and needs, not for a hypothetical "typical" student. Because "distance education in the twenty-first century must mean education any time, anywhere, for anyone," the paradigm of equal "education for all" must give way to that of appropriate "education for each" (Dillon and Blanchard, 1992, p. 29). The ability of educational institutions to fulfill their responsibility of appropriately serving a diverse population of distance learners will depend both on the knowledge gained from further student-centered research and on the flexible programming and learner support systems made possible by current and emerging distance education technologies.

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