

Current Status of Learner Support in Distance Education: Emerging Issues and Directions for Future Research

Ji-Yeon Lee

University of South Carolina
U.S.A.

This study examines the literature on learner support with the aim of helping institutions of higher education plan and implement support services for distance learners. The following issues emerged as areas of particular importance to future research in distance learner support: 1) the lack of research on cost-effectiveness; 2) the lack of empirical research; and 3) the need for a learner-centered approach in designing and implementing learner support. These issues are discussed in detail to enhance our understanding the role of learner support in post-secondary level distance education programs. It is further argued that future research should focus more on developing and refining methods for cost-benefit analysis of learner support, developing a general framework of the learner support model in dual-mode institutions, and developing systematic methods to identify, analyze, synthesize, and assess the needs of distance learners.

Keywords: learner support, distance education, higher education

The need for learner support in distance education comes from the recognition that distance learning is often mediated by networked computers with individualistic interfaces that require learners to work alone during most of the learning process. Since neither the instructor nor their peers are physically present for help and direct access to learning resources and facilities is somewhat limited, distance learners have unique needs that go far beyond the existing student support services in traditional education settings. Many researchers and practitioners have long suggested that successful student learning in distance education settings can be achieved only through appropriate support services (Feasley, 1983; Gunawardena, 1988; Sahoo, 1993; Watkins & Wright, 1991). Thus, it is not surprising that the level of support for distance learners is widely used as part of the accrediting

criteria adopted by most accrediting agencies (Broad, 1999; Institute for Higher Education Policy, 2000; Mantyla & Gividen, 2000).

According to a comprehensive survey by the National Center for Educational Statistics (1999), nearly 1/3 of all 2-year and 4-year postsecondary institutions offered distance courses in 1997-98, and an additional twenty percent of them were planning to offer distance courses within three years. As more and more post-secondary institutions are offering distance education programs or planning to do so in the near future, there is a great need for research on designing and implementing learner support services. Nevertheless, the majority of existing studies on learner support are based on large-scale correspondence programs (i.e., Open University in U.K.), and few of them provide a comprehensive analysis of support services in web-based environments or guidelines for establishing and managing learner support systems in dual-mode institutions (Simonson, Schlosser, & Hanson, 1999).

There can be several forces underlying the gap between research and the practice of learner support, but Robinson

Ji-Yeon Lee, Department of Educational Psychology, University of South Carolina, U.S.A. Correspondence concerning this article should be addressed to Ji-Yeon Lee, Department of Educational Psychology, University of South Carolina, 145 Wardlaw Hall, Columbia, Sc 29208, U.S.A. Electronic mail may be sent to via Internet to leejy@sc.edu.

(1995) comes up with two reasons to explain the situation. First, learner support has been perceived as peripheral to the 'real business' of distance education which is developing course materials. Second, many researchers tend not to consider learner support as a suitable topic for research since it is contingent on local circumstances and thus not easy to generalize the findings.

His points may have been relevant in the past when distance education was viewed as an inferior alternative to traditional face-to-face education and the emphasis was on the product, rather than the process. The public awareness of distance education is changing, if it has not already changed, and distance education is considered as a major and increasingly important component in higher education these days. Distance learners have become more sophisticated, diversified, and demanding than ever, and they expect a lot more than well-designed learning material. More importantly, the competition among distance education providers is such that if an institution fails to satisfy the students, it will lose them to one of its competitors. Thus many institutions offering distance education programs are struggling to better meet the needs of their students. Unfortunately, previous research studies on learner support are not able to provide much guidance for the institutions to cope with these problems, and all the parties involved in distance education are learning the lessons in a hard way – by trial and error.

The purpose of this paper is to review the current status of research on these three issues and suggest recommendations for future research on learner support in distance education. Based on an extensive review of the literature, three issues have emerged as the most problematic areas in research on learner support: 1) the cost-effectiveness of learner support; 2) the lack of empirical research and the difficulties in generalizing research findings as a result; and 3) the need for a learner-centered approach. The researcher believes that tackling these issues with greater depth could help enhance our understanding of learner support in distance education and advance research in this area.

Definition of Learner Support

Defining the key elements and boundaries of learner support is critical in conducting research on this subject since it provides a criterion in determining the standard or quality of learner support. However, learner support is rather a broad concept and its definition has varied from one researcher to another. Some consider resources and interactivity as critical in defining learner support while others put more emphasis on

individualization or customization of services (Garrison & Baynton, 1987; Tait, 1995; Thorpe, 1988).

Robinson (1995) and Tait (1995) introduced the notion of supplementary versus holistic approaches to supporting learners in distance learning environments. The former limits learner support to an add-on to course materials or other learning experiences while the latter regards it as a crucial factor, which pervades the entire education program. In other words, distance students' learning experience would not be complete without the support, according to the holistic approach.

It seems that more and more researchers are taking a holistic approach and considering learner support as an integrated part of the course and entire learning process (Sache & Mark, 2000; Scalzo, Matela-Rodier, & Ferrauilo, 2000). From this complementary perspective, learner support is all about providing access to both resources and opportunities that lead to lifelong learning (Reid, 1995; Smith, 2000). It extends the range and duration of services and emphasizes the importance of providing quality information, advice and guidance from pre-enrollment and post-graduation stages. Hardy and Boaz (1997) even extend the concept of learner support into the next level – "learner development" meaning preparation of the learners for a distance learning experience beyond providing the technical assistance. In this paper, the holistic viewpoint of learner support is promoted and learner support is defined as the provision of information, training, and resources for distance learners to assure quality learning.

Elements of Learner Support

There is an almost infinite variation of learner support systems in distance education, and as Sewart (1993) has noted, each system is unique in a sense that it is dealing with a different student population in a different context. Thus, developing a general yet representative framework of learner support has been a challenging task for researchers and practitioners in this area.

One of the most comprehensive lists of elements of such system has been developed by Keast (1997). He identified four distinctive types of support for distance learners - administrative support, instructional support, technical support, and counseling/tutorial support. This list is by no means exhaustive and does not include library support, a very important category that is increasingly the focus of attention these days. Nevertheless, it encapsulates the key functions of learner support and most support services suggested by other researchers or practitioners fall under Keast's categories (Aoki

& Pogroszewski, 1998; Frieden, 1999; Reid, 1995; Sache & Mark, 2000; Tait, 1995).

Each category will be further elaborated in the following section, and considering the special relevance to current emphasis on informational technology in distance education, library support will be added to Keast's four elements of the learner support system.

Academic/Tutorial Support

Academic/tutorial aspect of support is largely based on the Open University model in the U.K. where students have access to local study centers and tutors who supervise their academic progress and help with problems (Sahoo, 1993; Watkins & Wright, 1991). In more recent web-based distance education programs, the focus of academic support gears toward facilitating collaborative learning and increasing interactivity between distance students and instructors or among distance students. Some of the examples of such services include syndicate or learning groups, support by the instructor on request, workshops to assist students in developing specific skills or bridging skill gaps, supervisory support on research projects, and "learning contracts" (Carlson, Downs, Repman, & Clark, 1998; Carnwell, 2000; Lyall & McNamara, 2000).

Administrative Support

According to Frieden (1999), Administrative support services involve maintaining basic program functions such as admissions, registration, course scheduling, student records, and financial transactions. These services are often taken for granted as Web-based, database systems have become more available and students are given more access to, and control over, the overall administrative process. However, when they are not planned carefully, administrative support services cause the greatest frustration for distance students.

Technical Support

Abate (1999) defines technical support as monitoring the efficient operation of delivery media and offering technical assistance. While many research studies have been conducted on the use of new technologies in designing and developing distance courses, few of them directly focus on the use of new technologies to provide support services for distance courses. Examples of technical support services include providing a toll-free number for students to contact technical support staff,

requiring faculty to schedule online office hours via e-mails or other electronic communication tools, and devoting additional on-campus facilities to support the off-campus population.

Counseling Support

Counseling support includes various aspects of guidance and advising. In correspondence studies or other delivery media with more individualistic interfaces, the focus of such services tends to be on how to deal with academic concerns and/or career advising. In many web-based distance education programs, counseling support services also address ways to improve communication skills and increase interactivity, even helping students network with alumni and build a sense of community (Aoki & Pogroszewski, 1998).

Many institutions are also requiring orientation sessions that bring distance students on campus in order to familiarize them with the services that are available. Such sessions would provide an opportunity to learn the interfaces used to access the services as well as a chance to interact with the support personnel on-campus (Thompson, Winterfield, & Flanders, 1998).

Library Support

Access to adequate library services and resources is essential for the attainment of academic excellence in post-secondary education. Thus, distance learners need to be entitled to the library services and resources equivalent to those provided for students in traditional campus settings. However, traditional on-campus library services often fail to stretch themselves to meet the library needs of distance students.

In response to such disparities, a set of guidelines has been proposed by the Association of College and Research Libraries (2000) for distance education programs to ensure that library support meets the students' needs in fulfilling course assignments (e.g., required and supplemental readings) and to accommodate other information needs as appropriate. Some specific examples of such library services include region-wide borrowers cards, consortia membership between academic libraries, and fax/online capabilities for timely document delivery (Aoki & Pogroszewski, 1998).

In his review of the literature on distance learning library support, Stephens (1996) has stressed that what is in great need in library support is not only books and journals per se, but making instruction and other opportunities available for students to help them conduct independent library research. To be able to fill the gap, distance library services need to be more

customized and empowering for distance learners. Aoki and Pogroszewski (1998) proposed examples of such services, including the provision of toll-free telephone numbers for the library help desk and access to multiple databases and an online public access catalog. As many researchers and librarians have long suggested (Smith, 2000), a combination of special funding arrangements, proactive planning, and promotion is necessary to provide such services.

Emerging Issues in Learner Support

Many researchers have predicted that advances in technology would make it easier to provide quality support services with increased interactivity and automatization (Bates, 1994). However, for all these dramatic changes in terms of course delivery, from correspondence to audio/video conferencing systems and the Internet, many issues remain the same, with the technology having the potential to add yet another source of trouble. Some of the remaining issues of learner support in distance education are more critical and have greater implications for future research than others. This section will address those important issues in more detail. The pressing issues are: 1) the cost-effectiveness of learner support services; 2) the lack of empirical research and difficulties in generalizing the research findings as a result; and 3) the importance of a learner-centered approach in learner support.

Cost-Effectiveness of Learner Support

The first issue relates to the question of “How can we scale customized support services in a cost-effective way?” In order to better meet the diverse needs of distance students, support services need to be more individualized (Brent, 1999; Sahoo, 1993). Providing such services is not an inexpensive proposition, however, and the underlying assumption is that the greater the input to the provision of learner support services, the greater the completion rate and/or learning outcomes (European Commission, 1996).

On this point, there are relatively few studies that offer guidelines on this area, and most of them are focused on cost analysis of technology infrastructure (Brent, 1999; Rumble, 1999; Whalen & Wright, 1999). Although these cost estimation studies do offer policymakers some insight into the types and range of costs associated with distance education program in general, we can only infer from this broader framework how much it will cost to provide certain support services.

One of the biggest challenges in approaching the

cost-effectiveness of learner support is the fact that the relationship between the input and output is not a straight-line equation, and as the level of support moves beyond a certain point, the curve of student success seems to be flatten out (Sewart, 1993). The fact that there are relatively few references to direct and indirect costs involved with various support services also make it even more difficult to measure the cost-effectiveness of certain support services (Tait, 1995; Wagner, 1999).

The issue of cost-effectiveness in providing learner support services is also dictated by the mission and aims of the institution concerned. The range and standards of learner support services provided by an institution will be eventually determined by whether it is more concerned about services or making profits from offering distance education programs. The bottom line in any case is that there are some basic services that the institution needs to provide regardless of the costs to guarantee the quality of education. The minimum quality of education is often imposed by accrediting agencies through national standards, and it is entirely up to each institution to decide whether or not to offer services beyond the required minimum level.

Cost-effectiveness of learner support is likely to be achieved when the support system is structured to do “more with less,” and this requires some creativity on the part of institutions. One such example of scaling student services is partnering with other organizations such as businesses and school districts (Hickman, 1999). This may be an appropriate method for providing quality services by providing broader access and cutting the expenses on support staff training and maintenance by delegating the services to specialists.

Lack of Empirical Research and Difficulties in Generalizing the Findings

The second issue revolves around the dominance of pragmatism in research into learner support. There are almost infinite variations of learner support in distance education practice. The choices and uses of certain services from the huge service pool are largely based on practicalities rather than universal research findings. This leads to a tendency that pragmatism outweighs empirical inquiry or research in the area of learner support, as indicated by Robinson (1995). Based on the review of previous research and practice in this area, he has concluded that learner support is heavily contingent on local circumstances. There is nothing wrong with research informed by practice, and the contingent nature of learner support seems to be prone to such ‘how to do it’ type of case studies.

However, there are missed opportunities where we can further exploit this critical issue in distance education.

Christenson (1973) has made an interesting argument on how empirical research in social sciences may be used as a form of framework to guide practice. In developing a theory of social science, a researcher's own desires to extend the applicability of best observed practices often leads him/her to emphasize observations too much at the expense of theoretical reasoning. The researcher believes that this may explain one of the major problems associated with pragmatic research in distance education. In a case study, the generalizability of findings and its predictive power are somewhat limited to its contextual boundaries where the practice is emulated. Thus, this type of research often advocates the status quo rather than advancing theories and seeking/predicting changes beyond what has been observed.

Obviously each support system is unique in a sense that it is dealing with a different student population in a different context, however, we can always benefit from using a general framework or model for learner support, grounded in learning theories and supported by empirical data. Without such a framework, every institution needs to learn what does and/or does not work for them by trial and error. The worst part is that students have to suffer while each institution is experimenting with different models of learner support.

Need for a Learner-Centered Approach

The last issue relates to the need for a learner-centered or customer-focused approach in planning and implementing learner support. Nobody can better understand the difficulties that distance learners have to go through than the learners themselves. Yet, in many institutions offering distance education programs, learner support is based on top-down provision rather than analysis of learners' needs (Sache & Mark, 2000; Scalzo et al., 2000; Tait, 1995). This problem has been elegantly put by D. Sewart (1987) as follows:

It does not seem unfair to suggest that there is an overwhelming tendency within the field to offer systems from the viewpoint of the institution teaching at a distance rather than from the viewpoint of the student learning at a distance (p.72).

Traditionally, education has been interpreted as a provider-led activity, rather than a customer-led activity. In this mindset, the central question of identifying student needs is often neglected. In the past, when distance education was viewed as a product, rather than a process, the quality of

learning was largely determined by the quality of learning material and institutions were still able to operate successfully under the provider-oriented mode.

Things have been changed, however, and today's distance learners are much more sophisticated, diversified, and demanding than ever, and they expect a lot more than well-designed learning materials. Besides this, the competition among distance education providers is such that if an institution fails to satisfy the students, it will lose them to competitors. Understanding of learners becomes critical in providing appropriate support services for the survival of distance education institutions.

When incorporating a learner-centered approach in designing and implementing learner support systems, we have to understand that it is a continuous process, rather than a one-off activity. Different learners may have different needs, and those needs may change over time. Such diversity or volatility can only be traced by systematic and continuous efforts to identify, analyze, synthesize, and assess distance learners' needs.

As suggested by Nunan (2000), a user-pay system might be a solution to meet complex, diverse student needs and expectations. By generating choices and options that can be purchased according to individual needs and preferences, an institution can achieve customization in a more cost-effective way. It is important to note, however, that diversified user-pay systems can be an insightful resolution to design and deliver learner-centered support services only when they are followed by accurate descriptions of each option and counseling services. We have to consider that learners may not be able to make informed decisions to select what is best for them. Additionally, certain basic services such as library support or technical support should be provided by an institution in order to avoid compromising the overall quality of education at the expense of convenience or cost reduction.

Directions for Future Research

Learner support in distance education needs to be justified not only pedagogically but also financially, and to be able to do so, research on learner support should contribute to the following areas: 1) developing/refining the methods of cost-benefit analysis; 2) developing a general model of learner support in web-based, dual-mode institutions; and 3) providing a ways to systematically incorporate the needs of distance learners in designing and implementing learner support services.

The claims that providing appropriate learner support

services will increase the quality of learning as well as student retention and satisfaction have been made frequently and loudly. Yet these claims are rarely accompanied by supporting data. Without empirical evidence, learner support services become vulnerable to financial fluctuation. The only way to deal with this issue is to come up with sound methodologies to measure the cost-benefit of learner support, which leads to the first item on the agenda – developing cost-benefit analysis methods for learner support.

The framework suggested by Cukier (1997) is promising in that it includes a ‘value-directed’ benefit dimension. With this value-oriented model, institutions can measure the value added by intangible activities such as various learner support services. Cukier proposed three types of benefit measures - performance-oriented, value-oriented, and value-added benefits, and it is believed that future research on learner support can benefit from applying his multi-dimensional framework.

Second, the learner support models based on correspondence programs and their underlying assumptions need to be tested under new web-based distance education programs in future research. Large-scale, text-based distance education institutions such as the Open University in the UK have well-grounded learner support systems such as tutoring, counseling, and advising, and have served as a model for learner support system in previous research (Sewart, 1993; Singh, 1988; Tait, 1995). However, dual mode institutions that are now developing web-based distance education programs are facing different challenges in establishing and standardizing administrative procedures and support systems to accommodate new technologies and diversified learner populations.

Lastly, future research needs to adopt a learner-centered approach in designing and implementing learner support services and develop ways to identify, analyze, synthesize, and assess student needs and systematically adapt the support system to those needs. To do so, we should be able to utilize the varied methods presently available to us to efficiently communicate with distance learners. Research on student attrition is believed to provide valuable insights into our understanding of what has long been considered as one of the biggest problems of distance learning and thus could help the institutions of higher education better support their distance students.

References

- Abate, A. K. (1999). *Support services for distance education*. Retrieved August 22, 2003, from <http://eduport.com/community/kiosk/19991/serve.htm>
- Aoki, K., & Pogroszewski, D. (1998). Virtual university reference model: A guide to delivering education and support services to the distance learner. *Online Journal of Distance Learning Administration*, 1(3). Retrieved August 21, 2000, from <http://www.westga.edu/~distance/aoki13.html>
- Association of College & Research Libraries (2000). *Guidelines for distance learning library services*. Retrieved August 22, 2003, from <http://www.ala.org/acrl/guides/distlrng.html>
- Association of College & Research Libraries (2000). *Guidelines for distance learning library services*. Retrieved August 22, 2003, from <http://www.ala.org/acrl/guides/distlrng.html>
- Bates, A. W. (1994). Distance education. In T. P. Husen & T. N. Postlethwaite (Eds.), *The international encyclopedia of education* (2nd ed.) (p. 87). Oxford: Elsevier Science.
- Brent, B. O. (1999). Distance education: Implications for equity and cost-effectiveness in the allocation and use of educational resources. *Journal of Education Finance*, 25(Fall), 229-254.
- Broad, M. C. (1999). The dynamics of quality assurance in on-line distance education. *Electronic Journal of Instructional Science and Technology*, 3(1), 12-21.
- Carlson, R. D., Downs, E., Repman, J., & Clark, K. F. (1998, March, 1998). *So you want to develop web-based instruction: Points to ponder*. Paper presented at the SITE 98: Society for Information Technology & Teacher Education International Conference, Washington, DC.
- Carnwell, R. (2000). Approaches to study and their impact on the need for support and guidance in distance education. *Open Learning*, 15(2), 123-140.
- Christensen, C. J. (1973). *The contingency theory or organization: A methodological analysis*: Harvard University.
- Cukier, J. (1997). Cost-benefit analysis of telelearning: Developing a methodology framework. *Distance Education*, 18(1), 137-152.
- European Commission (1996). *The potential cost-effectiveness of tertiary open and distance learning*. Luxembourg: European Association of Distance Teaching Universities.
- Feasley, C. E. (1983). *Serving learners at a distance: A guide to program practices*. Washington D.C.: Association for the Study of Higher Education.
- Frieden, S. (1999). Support services for distance education. *Educational Technology & Society*, 2(3), 48-54.

- Garrison, D. R., & Baynton, M. (1987). Beyond independence in distance education: The concept of control. *The American Journal of Distance Education*, 1(3), 3-15.
- Gunawardena, C. N. (1988). *New communications technologies and distance education: A paradigm for the integration of video-based instruction*. Unpublished doctoral dissertation, University of Kansas, Lawrence, KS.
- Hardy, D. W., & Boaz, M. H. (1997). Learner development: Beyond the technology. In T. E. Cyr (Ed.), *Teaching and learning at a distance: What it takes to effectively design, deliver, and evaluate programs* (pp. 41-48). San Francisco: Jossey-Bass Publishers.
- Hickman, C. J. (1999). Public policy implications associated with technology assisted distance learning. *Adult Learning*, 10(3), 17-20.
- Institute for Higher Education Policy (2000). *Quality on the Line: Benchmarks for success in internet-based distance education*: The Institute for Higher Education Policy.
- Keast. (1997). Toward an effective model for implementing distance education programs. *The American Journal of Distance Education*, 11(2), 39-55.
- Lyall, R., & McNamara, S. (2000). Influences of the orientations to learning of distance education students in Australia. *Open Learning*, 15(2), 107-121.
- Mantyla, K., & Gividen, J. R. (2000). Distance learning failure factors: Defense Technical Information Center. In K. Mantyla (Ed.), *The 2000/2001 ASTD distance learning yearbook* (pp. 49-50). New York: McGraw-Hill.
- National Center for Education Statistics. (1999). *Distance education at postsecondary education institutions: 1997-98* (Statistical Analysis Report No. NCES 2000-013). Washington, DC: National Center for Education Statistics.
- Nunan, T. (2000). Rethinking the ways in which teaching and learning are supported: The flexible learning center at the University of South Australia. *Journal of Higher Education Policy and Management*, 22(1), 85-98.
- Reid, J. (1995). Managing learning support. In F. Lockwood (Ed.), *Open and distance learning today* (pp. 265-275). London: Routledge.
- Reinert, B. R., & Fryback, P. B. (1997). Distance learning and nursing education. *Journal of Nursing Education*, 36(9), 421-427.
- Robinson, B. (1995). Research and pragmatism in learner support. In F. Lockwood (Ed.), *Open and distance learning today* (pp. 221-231). London: Routledge.
- Rumble, G. (1999). Cost analysis of distance learning. *Performance Improvement Quarterly*, 12(2), 122-137.
- Sache, D., & Mark, M. (2000, August). *Support services for online and distance education programs*. Paper presented at the 16th Annual Conference on Distance Teaching & Learning, Madison, Wisconsin.
- Sahoo. (1993). *Higher education at a distance*. New Delhi: Sanchar Publishing House.
- Scalzo, K., Matela-Rodier, D., & Ferrauilo, M. (2000, August). *Customer-focused support services for distance learning*. Paper presented at the 16th Annual Conference on Distance Teaching & Learning, Madison, Wisconsin.
- Sewart, D. (1987). Limitations of the learning package. In M. Thorpe & D. Grugeon (Eds.), *Open learning for adults*. Harlow: Longman.
- Sewart, D. (1993). Student support systems in distance education. *Open Learning*, 8(3), 3-12.
- Simonson, M., Schlosser, C., & Hanson, D. (1999). Theory and distance education: A new discussion. *The American Journal of Distance Education*, 13(1), 60-75.
- Singh, B. (1988). Student support services. In B. N. Koul, B. Singh & M. M. Ansari (Eds.), *Studies in distance education* (pp. 66-72). New Delhi: Association of Indian Universities: New Delhi Indira Gandhi National Open University.
- Smith, R. (2000, August). *Library? What library? Building research requirements into distance courses*. Paper presented at the 16th Annual Conference on Distance Teaching & Learning, Madison, Wisconsin.
- Stephens, K. (1996). The role of the library in distance learning: A review of UK, North American and Australian literature. *The New Review of Academic Librarianship*, 2, 205-234.
- Tait, A. (1995). Student support in open and distance learning. In F. Lockwood (Ed.), *Open and distance Learning today* (pp. 232-241). London: Routledge.
- Thompson, R., Winterfield, J., & Flanders, M. (1998). Into the world of electronic classrooms: A passport to flexible learning. *British Journal of Educational Technology*, 29(2), 177-179.
- Thorpe, M. (1988). *Evaluating open and distance learning*. Harlow: Longman.
- Wagner, E. D. (1999). Beyond distance education: Distributed learning systems. In H. Stolovitch & E. Keeps (Eds.), *Handbook of human performance technology* (2nd ed.) (pp. 626 – 648). San Francisco: Jossey-Bass/Pfeiffer.
- Watkins, B. L., & Wright, S. J. (Eds.). (1991). *The foundations of American distance education*. Dubuque, Iowa: Kendall/Hunt Publishing Company.
- Whalen, T., & Wright, D. (1999). Methodology for

Ji-Yeon Lee

cost-benefit analysis of web-based tele-learning: Case study of the Bell Online Institute. *The American Journal of Distance Education*, 13(1), 24-44.

Received September 2, 2003
Revision received December 1, 2003
Accepted December 12, 2003