Increasingly, limited financial resources have resulted in program reductions in undergraduate physical education and health education at several higher education institutions. As traditional methods of program delivery are phased out, physical and health educators need to consider alternative forms of training and servicing future professionals. One promising nontraditional strategy is the use of distance education as a delivery source. In distance education, the learner or learners are physically separated from the teacher—a situation that dictates changes in behavior for both the teacher and the learner. To be effective distance educators, teachers must become familiar with a variety of technological systems that deliver instruction and allow interaction between teacher and learner, and they must vary their instructional strategies to meet individual needs. Students must become independent learners, taking a more aggressive role in communicating their needs and seeking feedback. Distance education can take many forms, including video/audio models that incorporate television, satellite transmissions, or computer applications. Physical and health educators can easily adapt core content courses which have traditionally relied on lecture and laboratory experiences to distance education formats for delivery to teacher preparation students. Distance education methods can also be used to deliver instruction in public school settings. (IAH)
Distance Education: A New Paradigm for Physical Education and Health

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Introduction

In Oregon and Massachusetts, tax limitations have mandated program reductions at the expense of undergraduate physical education in several higher education institutions. In Kansas, proposed legislation to cut K-12 physical education was saved only through the intervention of their United States Senator. Recent discussions between national AAHPERD leaders and other concerned professionals have expressed serious concern that these trends are not temporary. Many professionals feel that we will see more higher education programs imperiled and eliminated.

With the limited financial resources available, the cost of providing a full range of educational opportunities to all citizens has become prohibitive (Lane, 1990). Traditional forms of education are failing because they are rigid, serve the elite, are preoccupied with "book knowledge" and not problem solving, and are unable to prepare people adequately for life and work (Draper, 1987).

As traditional methods of program delivery are phased out, physical and health educators need to look at alternate forms of training and servicing future professionals. At least one promising non traditional strategy is the use of distance education as a delivery source.

What is Distance Education

Rumble (1990) presents a five part definition of distance education. First, in any distance education process there must be:
a teacher; one or more students; a course or curriculum that the teacher is capable of teaching and the student is trying to learn; and a contract, implicit or explicit, between the student and the teacher or the institution employing the teacher, which acknowledges their respective teaching-learning roles.

Second, distance education is a method of education in which the learner is physically separated from the teacher. It may be used on its own, or in conjunction with other forms of education, including face-to-face.

Third, in distance education learners are physically separated from the institution that sponsors the instruction.

Fourth, The teaching/learning contract requires that the student be taught, assessed, given guidance and, where appropriate, prepared for examinations that may or may not be conducted by the institution. This must be accomplished by two-way communication. Learning may be undertaken either individually or in groups; in either case it is accomplished in the physical absence of the teacher.

Finally, where distance teaching materials are provided to learners, they are structured in ways that facilitate learning at a distance.

Distance education dictates changes in behavior for both the teacher and the learner. Dillon (1989) points out that distance education requires faculty to change their instructional philosophy within an environment that is still suspicious of and threatened by the non-traditional. Distance education requires the teacher to be familiar with many technological systems including print, video,
audio, and computer systems. Teachers must vary their instruction to better meet individual needs, and coach students about how to learn more effectively on their own. Strain (1987) explains the distance education teacher as one who moves from creating instruction to a manager of resources, students, and a disseminator of views.

Within the distance education experience, students must also overcome the threats posed by high tech. Persistence and a clear focus are critical to success in a distance learning situation. The students must become more aggressive in their verbal behaviors and ask more questions and seek satisfactory responses. The most difficult feature of distance learning is an absence of group processes associated with classroom experiences. Interestingly, a study by Barker and Platten (1988) indicated that students in a distance education setting seemed to perform as well on assignments, class activities, and the final exam as did the traditional students.

Forms of Distance Education

Distance education can take many forms. The most familiar method has been for teachers to travel to remote sites and teach a class. To increase time effectiveness, and utilize improved delivery systems, most distance education programs incorporate either video/audio interaction or individualized instruction.

Video/audio models of distance education include broadcast television, satellite, microwave, fiber optics, and audiographics. The most widely used format is broadcast television, however recent developments in satellite systems have produced other successful
programs. The interactive capability of many of the satellite networks has produced a distance classroom that is nearly identical to a regular classroom. Teachers and students can interact through both two-way video and one-way video with two-way audio systems. The relative inexpense of a downlink satellite receiver affords the delivery of multiple programs combining compressed video, and computer generated applications.

Individualized study has been a method of reaching the remote student for some time. However, technology has raised the quality of potential individualized instruction to include the use of video, print, audio, and computer equipment to enhance the product received by the independent learner.

Implications for Physical Education and Health

Unfortunately, most physical and health educators have failed to recognize the need to involve themselves in change rather than react to it. Dougherty and Bonanno (1987) believe that if physical educators are to survive in the future they must create a learning environment that promotes and facilitates adaptation and flexibility. Strategies for delivering teacher preparation programs and perhaps public school programs may well utilize non-traditional methods.

The prospect of using distance education as a philosophical base for preparing physical and health educators is not a futuristic concept, but confronts us today. Physical and health educators believe in the importance of their professional goals and therefore must establish insightful ways to keep preparing teachers amid continued cuts in higher education programs.
Traditional physical education and health programs have been heavily based in skill development and demonstration. The "professional activity" course is an integral component of a physical educators preparation. If this part of the program should be offered in a distance education framework, how might it appear? Perhaps the teacher and the learner could use interactive video interfaced with computers to facilitate motor learning at a distance.

The traditional core content classes that use lecture and laboratory experiences can easily be adapted to a distance education situation. Additionally, this new format could provide "networks" which combine the expertise of several campuses across the country which still have physical education and health programs. Students could still "major" in a content area although it isn't offered on that campus.

Within the environment of a public school setting, perhaps physical education will resemble an ESPN aerobic show. A central instructor will broadcast the lesson to a number of sites. The interactive capability of many distance education systems would give the distance instructor the ability to offer feedback to the students just as if they were in the gym.

The potential use of distance education within physical and health education is tremendous. Distance education provides the potential for greater service to more individuals, but it also poses a possible caveat to the number of individuals who will actually be needed to deliver physical education and health programs.
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