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ABSTRACT

Both face-to-face and distance learning methods are currently being used in adult education and career and technical education. In theory, the advantages of face-to-face and distance learning methods complement each other. In practice, however, both face-to-face and information and communications technology (ICT)-based distance programs often rely on transmissionist, teacher-centered provision of information rather than on interactive, student-centered construction of knowledge. Nevertheless, these two themes clearly emerge as the most frequently cited strengths of blended approaches: the personal contact allowed by face-to-face classroom learning and the flexibility allowed by distance learning. The following themes emerge from the discussions of effective blends of face-to-face and distance learning methods: (1) good practice in planning, monitoring, and managing distance learning has much in common with good practice of programs delivered through any mode; (2) the pedagogy of learning must be suited to the requirements of the content and needs of the learner and can be combined with face-to-face learning in various proportions; (3) distance learner engagement and interaction is critical and can be addressed by appropriate design and use of ICT; (4) like face-to-face students, distance students need appropriate preparation for participation and follow-up support; and (5) ICT must be used judiciously. (Contains 17 references.) (MN)

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Blending Face-to-Face and Distance Learning Methods in Adult and Career-Technical Education

Both face-to-face and distance learning methods are used today in adult education and career and technical education (CTE), and both methods have their individual strengths and limitations. With the increase in the use of information and communications technology (ICT) for distance learning, adult and CTE programs use a blend of both methods in order to maximize the advantages and minimize the disadvantages of each. This ***Brief*** reviews the literature on combining traditional classroom instruction with distance learning via ICT and offers suggestions on how the two methods can be effectively blended in adult and CTE programs.

Strengths and Limitations of the Two Methods

In theory, the advantages of face-to-face and distance learning methods complement each other (Leung and Tran 2000). In classroom learning, face-to-face contact both in and out of class can help motivate and involve students; active learning can engage students in thinking and interaction through questioning, discussion, small-group presentation, role play, and case studies. In distance learning via ICT, technology makes material available anytime and anywhere; multimedia (e.g., video and audio) can engage multiple brain channels; graphics can help understanding of complex concepts; interactive activities can involve students in dynamic learning through a cycle of questions/answers/feedback; discussion and work groups allow students to evaluate their performance against that of peers. It is important to note, however, that those two sets of complementary advantages are sometimes only theoretical (Cutshall 2002; McKavanagh et al. 2002). In practice, both face-to-face and ICT distance programs often rely on transmissionist, teacher-centered provision of information rather than on interactive, student-centered construction of knowledge; students may end up receiving passively both online and in the classroom. Nevertheless, two themes clearly emerge as the most frequently cited strengths: the personal contact allowed by face-to-face classroom learning and the flexibility allowed by distance learning.

An interesting wrinkle is that different distance learning methods can offer different combinations of personal contact and flexibility (Cutshall 2002; McKavanagh et al. 2002; Miller and Webster 1997; Perraton 1991; Zirkle 2002). In synchronous distance methods (e.g., satellite TV, audioconferencing, videoconferencing, live Internet chat), learners and/or instructors are all engaged in the activity at the same time, restricting flexibility; flexibility is further restricted by methods like audioconferencing or videoconferencing in which participants must be at a physical location with necessary technology and hook-ups. However, asynchronous methods allow learners and instructors to participate at different times. Learners can listen to audiotapes, view videotapes, check e-mail, log on to a threaded discussion, or visit webpages anytime; the necessary technology is widely—although not universally—available. The ultimate in flexibility is the "anytime anywhere" availability of a web-based course or course components.

It may be surprising that studies examining the connection between learning style and success among distance learning students yield mixed results. Aragon, Johnson, and Shaik (2000) found no correlation between learning style preference and course grade among online adult students in advanced technology education, in spite of differences in learning style preferences between online and face-to-face students enrolled in the program. Tucker (2000), on the other hand, compared distance and face-to-face students (with the same instructor, content, materials, assignment, time frames, and tests) and found significant differences in posttest and final exam scores but no significant differences in pretest scores or final course grades. Both sets of results suggest that neither method is inherently more or less effective—regardless of learning style, students can be as successful online as face to face. Indeed, those studies and others (e.g., Miller and Webster 1997; Misko 2000) suggest that, at best, students self-select into face-to-face or distance learning methods that suit their individual preferences and styles; at worst, individual preferences and style affect satisfaction with specific elements of the method (e.g., being the only student at a remote videoconferencing site) far more than overall level of satisfaction or success.

Guidelines for Blending

Two common themes in discussion of an effective blend of face-to-face and distance learning methods are as follows:

- Good practice in planning, monitoring, and managing of distance learning has much in common with good practice for programs delivered through any mode (Hawksley and Owen 2002). Critical success factors include (1) integration of program planning, monitoring, management, and resources; (2) a good understanding of the distance learning operation's costs; (3) learner contact with instructors and others; (4) student guidance before program entry; (5) well-established procedures for selecting learning materials and monitoring their use; and (6) procedures to obtain feedback and a process to incorporate feedback survey results into future program planning.

- The pedagogy of online learning must be suited to the requirements of the content and needs of the learner and can be combined with face-to-face learning in various proportions (Mishra 2002). Media should be used to suit content (e.g., 3-D models for architectural drawing). Interaction can also be achieved by combining different technologies: learner-content interaction via webpages with graphics, animation, audio, video, interactive quizzes, and progress checks; one-to-one learner-teacher or learner-learner interaction via e-mail and chat; one-to-many learner-teacher or learner-learner interaction via e-mail, listserv, group chat, discussion boards; many-to-many learner-teacher or learner-learner interaction via group chat, discussion.

In addition to those two general principles, a number of more specific points appear repeatedly in the literature.

Need for Distance Learner Engagement and Interaction

Concerns about the need for interaction and engagement among distance learners must—and can—be addressed by appropriate design and use of ICT (Barker 2002). The use of ICT should be appropriate for learner engagement and support, individualization, meaningful learning (including information technology and problem-solving skills, artistic expression, and construction of knowledge) and use by students with any characteristics, including disabilities, in different circumstances; facilities, processes, and practices should allow communication and contact, flexible interaction and problem solving, and collaboration. Reflecting that concern, Askov and Simpson (2001) demonstrated that a collaborative online learning environment, based on paired and small-group work, could be created for adult distance students, leading to high levels of mastery of course objectives, interaction with instructors and other students, and skill in computer and Internet use. Course design emphasized instructor guidance and support, as well as computer conferencing for interaction, collaboration, and development of an online community.

Preparation and Support for Distance Students

Like face-to-face students, distance students need appropriate preparation for participation and follow-up support, ranging from administration and logistics to the guidance and facilitation of learning (Choy et al. 2002). Distance students must rely on secure, easily accessible ICT for clear, detailed information about enrollment, modules, courses, requirements, assessments, expectations, and sources of help; the opportunity to enroll, pay fees, and complete all administrative procedures; regular contact and timely response and feedback from instructors; a variety of methods to communicate with teachers (e-mail, online chat, bulletin boards); enrollment information linked to application forms; and online assessments. Likewise, distance students often need orientation to procedures for self-assessment; writing assignments; and the details of learning online—etiquette, code of conduct, FAQs, technical assistance, referencing online materials, using search engines, accessing databases, and quality criteria for Internet information.

Judicious Use of Technology

Balancing the capabilities of ICT and the increased access it can provide to learners is a concern about using ICT appropriately. On the one hand, ICT can allow access not only to adult and CTE programs but also to specific learning experiences that would otherwise be difficult to provide. For example, web-based, multimedia, virtual site tours can provide contextual information, promote insights, and bridge the gap between theory and practice just as actual site tours do—without the inconvenience of inclement weather, travel costs, scheduling and logistics, and safety or security arrangements (Barrett and Wilkins 2000). Likewise, a teacher education course website can post and store all students' written assignments and video teaching demonstrations for review and assessment by teacher educators. On the other hand, capabilities come at a price and do not necessarily lead to use. Online connection via dial-up modem can be a problem with very large graphic or video files; CD-ROM may be a better option (Deal 2002). Some practitioners (e.g., Hutton 1999) recommend at least one face-to-face meeting with students even in a distance course. And the use of any technology should be driven not by the beguiling appeal of ICT functionality but rather by learning outcomes and the desirability of providing multiple presentations and realistic applications of content; multimedia should complement materials rather than distract attention (Barker 2002).

The Best of Both Worlds

Although ancient by ICT standards, a comment by Perraton (1991) makes an appealing case for blending face-to-face and distance learning methods: "If we can use face-to-face study along with print or broadcast we can aim for the best of both worlds—the economies of mass production achieved through printing or broadcasting together with the humanity and individualism of personal contact" (p. 1). Perhaps the best of both worlds comes from observing the classic precept of sound instructional design that the choice of *any* learning method should be driven by the needs of the learner, the nature of the content, and the interactions needed for learning.

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