Administrative Issues for High School Distance Education

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Distance education -- when defined as an educational transaction between a teacher at one geographic location and a student at another -- dates back to nineteenth century correspondence courses (Holmberg, 1986; Moore, 1989; Watkins, 1991). This distance education model used the mail to provide learners with educational opportunities that were otherwise unavailable. Most correspondence study was designed for adults, but a few experimental high school courses were offered in the 1920s (Holmberg, 1986).

Since then, the number and kinds of distance education delivery systems have multiplied drastically. Most technology-based systems use one of more of the following delivery vehicles: two-way video, one-way video with two-way audio, audiographics, electronic mail, computer conferencing, or other Web-based delivery systems (Moore & Kearsley, 1996).

The emergence of new delivery systems with interactive capabilities has expanded the scope of distance education beyond that of the adult learner. In the last decade, elementary and secondary schools began participating in distance learning projects that provided math, science, foreign language and other courses to students -- courses that would otherwise be unavailable because certified teachers could not be found locally or student demand did not justify hiring a full-time teacher (Ballard, 1992; Jefferson & Moore, 1990; Williams, Eiserman & Quinn, 1988; U. S. Congress, 1989).

Formal federal support for elementary and secondary distance education began with the inclusion of the Star Schools Program as part of the Omnibus Trade Bill and Competitiveness Act passed by the U. S. Congress in 1988 (cited in Jefferson & Moore, 1990; U. S. Congress, 1989). Congress created this program as "a comprehensive Federal effort to develop multistate, multi-institutional K-12 distance education" (U. S. Congress,1989, p. 135). In 1991, Congress passed the Star Schools Program Assistance Act to provide funding for the support of "improved instruction in mathematics, science, and foreign languages... to underserved populations" (20 U. S. C. § 4081) using distance learning technologies.

States such as Georgia have also made a strong commitment to distance education. The Georgia Statewide Academic and Medical System (GSAMS) provides an interactive compressed video delivery system to over 400 sites throughout the state including K-12 public schools, post-secondary educational institutions, hospitals, and a variety of other organizations such as Zoo Atlanta, and Georgia Public Broadcasting (Georgia Statewide Academic and Medical System, 1998).

Given the growing infrastructure to support distance education in high school settings, what can high school administrators do to assure that distance learning students are successful? The answers to this question depend, to some extent on the nature of the distance delivery system, but ultimately revolve around four inter-related factors: the course design (developed by the course provider and/or instructor), the school implementation plan, the local classroom facilitator/collaborating teacher, and the students.

The course design should clearly explain the course purpose and objectives, how the course will be delivered technologically, and how the course should be implemented in the receiving high school. It should also include a definition of local student and facilitator/teacher roles and responsibilities, a list of pre-requisite skills that students should have prior to enrolling, and should identify the materials and student supportresources that will be available.

High school administrators should pay close attention to these course designs as they provide distance courses for students. Clearly, the course purpose and objectives should match student needs, but much of the success or failure of the distance experience will depend on how individual schools implement the course.

First, does the school have the technological resources to support the course? If the course design calls for live course delivery via satellite, augmented by World Wide Web chat areas for interactive student support, then schools must be able to provide both these resources. To assume that students can make-do with the direct instruction that may be the focus of the satellite delivery component shortchanges them, and may prevent the students from accessing and utilizing vital support resources they require to be successful in the course.

Second, how do the course calendar and school calendar mesh? If there is much variation in the course and school calendar, students will probably miss a number of days of the distance course due to school exam schedules, holidays, and teacher work days. While absence is not always a critical factor in face to face education, it can be crucial in distance education. Since distance education courses frequently have multiple sites participating, course material is not easily delayed or repeated for sites when they miss sessions. Most distance providers using video-based distance delivery encourage participating schools to tape the missed classes, but scheduling make-up sessions for students can be problematic
given the other time demands students encounter in the high school setting.
Thus, students returning from a school-scheduled vacation may find themselves several days behind their classmates at other locations. Even worse, these students get further behind as they try to make up what was missed in order to catch up with what is going on.

Does this mean administrators should avoid high school distance courses that don't match a school calendar? Not necessarily. If the students enrolled in the course are autonomous and self-directed, and are willing to assume the responsibility for making up the missed classes themselves, they can probably successfully catch up and succeed. However, if the students are not willing to take on these responsibilities, then the school must structure a make-up plan to assure the students do complete the missed requirements in a timely manner -- recognizing that the development of such a make-up plan may be difficult.

Closely tied to this issue, particularly for synchronously-delivered distance education courses, are the course bell-schedule and school bell-schedule. If the distance course begins on the hour, but the school bell schedule starts on the half-hour, what accommodations can

be made to allow students to participate in the complete distance education experience? Depending on how the course is designed, it may be permissible for students to miss the first 10 minutes of a distance class. Conversely, that may be the most important part of the class in terms of conveying assignments, clarifying questions, etc. Or, if students have to leave 15 minutes early, they may miss collaborative problem-solving or lab-based activities. It might appear that missing ten or fifteen minutes of a class is trivial, but missing these chunks repeatedly may deny the student access to class activities that were designed to be an integral, vigorous component of the course.

Theoretically, these "missed" activities could be made up at thebeginning or end of the next class session, but the reality of the hectic classroom/school environment may preclude this. As with the mismatched course/school calendar problem, students with high autonomy may overcome these barriers independently. However, if the high school distance students are not self-directed, the high school administrators should formally structure a way for students to make up this missed addition, administrators may want to check with the course provider to see what content and activities students are missing, and to see if the course provider/designer has any suggestions for ways the high school can accommodate the mismatched bell schedule.

Third, what pre-requisite skills and knowledge does the course instructor assume that participating students have? Generally, the course description will indicate that students should have completed certain pre-requisite courses. High school administrators must make every effort to assure that students who do not meet the pre-requisites are not permitted to enroll in the course. This is critical in distance education, where the instructor, being at a geographically removed site, may not be able to adequately diagnose and remediate pre-existing student deficiencies. In face to face instruction, a teacher may be able to intercede and direct the student to a resource that can provide adequate remediation. Even though remote teachers may be able to provide remediation for an existing course, they are rarely in a position to do more than this. In these cases, students are left without a support mechanism and are frequently doomed to failure.

While high schools must establish distance education registration policies that screen for pre-requisite courses, this is not always enough. In a recent study, Kirby (1997) found that students in one section of a high school physics course delivered via distance met the algebra course requirements set forth by the course designer. However, the students did not possess the algebraic skills and competencies required to succeed. Why? The local high school algebra course the students had "passed" had not adequately prepared them with equation solving and graphing skills. The students themselves noted that although they had passed the Algebra classes, they had not "learned" anything, and were thus unable to function mathematically in the Physics course. These students fared as poorly as students in another school (enrolled in the same course) who had not taken any Algebra (Kirby, 1997).

Fourth, administrators must recognize that local facilitators and collaborating teachers play a pivotal role in high school distance education classrooms. Most distance course providers require facilitators or collaborating teachers in the local classroom, although the responsibilities of these individuals will vary greatly according to the course design. Some courses expect the facilitator to operate the equipment, distribute materials, and proctor exams. Other courses may require the facilitator to be an active participant in the class, learning along with the students. Courses using the collaborative teacher model may require a local teacher to prepare and deliver some of the course content locally.

In any case, the high school administrator must be aware of the roles and responsibilities the course designer expects of the facilitator/collaborating teacher -- and the administrator must support the local facilitator/teacher in their execution of these duties. Sometimes it may appear that local facilitators or teachers are superfluous in a distance setting, particularly if they are not playing a directly
instructional role. The temptation to request that facilitators/teachers undertake additional responsibilities during the distance course may be strong. At the very least, asking these personnel to assume other responsibilities may result in delays in materials distribution (because the facilitator/teacher missed the communication about forthcoming materials), improperly administered or scored exams or projects (again, due to missed communication), or other breakdowns in the distance education process.

But improper use of local facilitators/teachers may result in even larger problems. In most high school classrooms, the local facilitator/teacher assumes the unwritten role of classroom management authority figure. In addition to helping non-autonomous students stay on task, the local facilitator/teacher contributes to the classroom climate, and helps build student interest and enthusiasm for the course. Asking local facilitators/teachers to undertake other tasks, particularly outside the confines of the distance classroom, prevents these personnel from participating in the course activities, from monitoring student participation and engagement, and from providing encouragement that students may desperately need. While highly-motivated, self-directed students may stay on task and involved in class activities even in the absence of a local facilitator/teacher, students with low autonomy are usually unable to engage effectively. They rely on the external monitoring system provided by the facilitator, and in the absence of that support mechanism, attend only partially or sporadically to class events. In worse case scenarios, the absence of the facilitator may result in students failing to even activate the technology required for course delivery.

Finally, student expectations play a critical role in distance education. Some students think that non-traditional classes are an easier way to go, and these attitudes and perceptions may be perpetuated by other faculty and students in the high school setting. If students enroll in distance courses thinking that the course will be easier than a traditional class, and are not prepared to commit to the extra time and energy that distance classes inevitably require, chances are good the student will not be successful. It is up to the high school administration to assure that the students are prepared, affectively and academically, before they enroll in a distance education class.

Simply put, high school administrators planning to incorporate distance education courses into their curricula must closely examine the major components of the distance delivery system including the course design, the local facilitator and students, and the high school organizational system itself. Matching the features and requirements of the distance education course to the local school and students, and planning constructively to accommodate any deviations, is critical if effective integration and utilization of distance education, and ultimately, maximum student achievement, are the goals.

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