



Additional briefs include:

Strategies for Improving Academic Achievement and Teacher Effectiveness

Goals

Steps to Increase Accessibility

Promotion of Curricula and Teaching Strategies That Integrate Technology

Professional Development

Technology Type and Costs

Coordination with Other Resources

Integration of Technology with Other Resources

Parental Involvement

Collaboration with Adult Literacy Service Providers

Accountability Measures

Supporting Resources

Collection of Key Questions to Consider

Innovative Delivery Strategies

Local technology applications and plans should include a description of how the applicant will encourage the development and use of innovative strategies for the delivery of specialized or rigorous courses and curricula through the use of technology, including distance learning technologies, particularly in areas that would not otherwise have access to such courses or curricula due to geographical distances or insufficient resources.

Overview

While distance learning is not new—courses have been delivered via television and video for many years—the widespread access to the Internet provides a new and powerful option: *online courses* (also called *virtual courses*) in which teachers and students exchange information, engage in discussions, and collaborate online. Online courses are coming into widespread use at the high school level. For example, at least 14 states have launched virtual high schools to provide online courses throughout their states (Clark, 2001). These online courses extend options available to students; for example, advanced placement courses can be provided online when they could not be provided otherwise due to geographical distances or insufficient resources. Online courses can enable sharing resources across schools within a district, so that a specialized topic taught by a teacher in one school can be made available to students in other schools. Online courses can also better serve students who cannot attend school due to health or other reasons, provide more connections with students who are home schooled, and provide alternative approaches to learning for students who don't do well with traditional classroom approaches.

Research has shown that when online courses are carefully developed and implemented, they lead to successful learning. While most of this research is on college-level courses, recent studies are finding similar results at the high school level: Students in online courses most often perform as well on tests as students in traditional classes, and also report equal satisfaction with the learning experience (Phillips, R. and J. Merisotis, 1999; Russell, 1999).

Key Questions to Consider

- What are the primary purposes that online courses can serve in extending the curriculum offerings in your district?
- What will be the process for planning, implementing, and evaluating online courses for your district? How will all the relevant constituents be involved?
- Will the online courses be developed and taught by district staff, purchased from outside the district, or some of each?

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“Today’s challenge is to ensure that information technology increases the quantity of educational opportunities while maintaining or enhancing the quality of those opportunities.”

(National Education Association Guide to Online High School Courses, 2002)

Strategies for Addressing Local Technology Applications and Plans

Districts may take different approaches to providing online courses. Some have state-supported virtual high schools available. Others link to regional consortia or use virtual courses provided by local universities. Many districts are beginning to offer their own online courses taught by their own teachers, who are provided with training in online course development and facilitation. Other districts are contracting with private companies or nonprofit organizations that provide online courses, often to make advanced placement courses available in schools that could not offer them otherwise. See Clark (2001) for more information and examples about each of these approaches.

No matter which approach is taken, experience has shown that providing online courses successfully requires careful planning that involves policymakers, teachers, online course managers, parents/guardians, and students. The *Guide to Online High School Courses*, developed by the National Education Association (NEA), provides a series of questions for each constituent to consider during the planning process. It also provides a series of detailed indicators of quality in online courses, divided into seven categories that need to be considered carefully in planning:

1. Curriculum: Online curricular offerings should be challenging, relevant, and aligned with appropriate national, state, and district standards for student learning.
2. Instructional Design: Online courses should be designed to take advantage of the online learning environment and support the development of 21st-century learning skills.
3. Teacher Quality: Teachers should be skilled in the subject matter, learning theory, technologies, and teaching pedagogies appropriate for the content area and the online environment.
4. Student Roles: Students should be actively engaged in the learning process and interact on a regular basis with the teacher and online classmates.
5. Assessment: Assessment should provide opportunities for students to reflect on their own learning and work quality during the course, and give students the opportunity to demonstrate mastery of the course content.

6. Management and Support Systems: Support systems should provide resources to teachers, students, and parents comparable to those provided by face-to-face courses, as well as special support necessitated by the unique circumstances of the online environment.
7. Technological Infrastructure: The technology behind the course should work reliably, simply, and economically. Technical assistance should be available whenever needed by students or teachers.

Extended Resources

Distance Learning Resource Network. *Distance Learning for K–12 Students*. Available at: <http://www.dlrn.org/k12/index.html>
Based at WestEd, this resource provides information on how to find online courses for K–12 students, along with other resources about distance learning.

References

- National Education Association (2002). *Guide to Online High School Courses*. Retrieved June 12, 2002. Available online at <http://www.nea.org/technology/distanceded/highschool>.
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- Russell, T. L. (1999). *The No Significant Difference Phenomenon*. Chapel Hill, NC: North Carolina State University, Raleigh, NC.

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Technology Briefs for NCLB Planners can be obtained by visiting <http://www.neirtec.org>.

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