

National Education Association

# *Guide to Teaching Online Courses*



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This Guide to Teaching Online Courses is the product of collaboration among a number of organizations committed to ensuring the quality of online instruction to secondary students in the United States. It is intended as a guide for policymakers, administrators, educators, and others engaged in selecting, hiring, training, and supporting teachers to provide quality online instruction to students, or in making policy choices affecting online education. It is designed to provide an overview of the development of an effective online education system, focusing particularly on the skills teachers need to teach effectively online, the professional development necessary to acquire those skills, and the models schools need to evaluate and improve online teaching. It is critically important that school systems and school administrators contemplate such issues before launching online courses or enrolling significant numbers of their students in such courses. Crucial lessons from decades of offline instruction are applicable, and the body of new and instructive information about the unique nature of online education is growing every day.

An earlier publication, *Guide to Online High School Courses*, set forth criteria for quality online courses, seeking to empower students, parents, educators, administrators, and policymakers to assess the quality of online courses and to help them establish quality standards for courses of their own design. By contrast, this publication is focused on ensuring that the teachers leading online courses are of the highest quality, well equipped, trained, and supported for the many challenges of educating today's students via online instructional delivery.

The organizations collaborating in the creation of this guide are listed below:

International Society for Technology in Education (ISTE)

National Education Association

North American Council for Online Learning

National Commission for Teaching and America's Future

Virtual High School, Inc.





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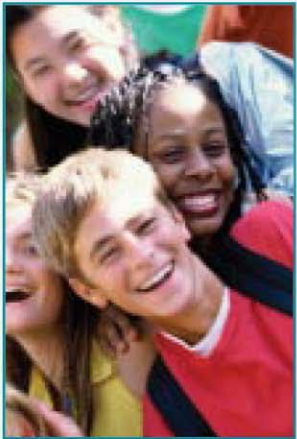
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## Section I

# Overview of Online Education: Opportunities and Challenges for Students and for Educators



## Opportunities for Students

The rise of personal computing and the Internet has changed modern life in ways large and small. At home, work, and school, the world is a different and smaller place, with information at people's fingertips in ways that would have seemed unimaginable as little as a generation ago. Where once the average American school's

roster of on-site high technology was an "A/V Closet" filled with filmstrip projectors and slide carousels, schools today are equipped with computers, internet access handhelds, and other high tech tools for students, teachers, and administrators.

Thanks to these technological breakthroughs, American schools have new classroom models available to them. The ubiquity of computers in schools (virtually all of the nation's public schools today have computers with Internet access, according to NCES<sup>1</sup>) has opened the door to a new set of educational possibilities: online courses now make it possible for students in

even the most remote locations to have access to classes their home schools were previously unable to provide. The lesson of large-scale natural disasters such as Hurricane Katrina is that the provision of educational services to students need no longer be constrained within classroom walls.

But good courses require good teachers. This is where the online opportunity provides the greatest opportunity, and the greatest challenge. Online teaching shares much with face to face teaching, but it also has a unique set of skills and requirements if educators are to teach well online. We are only beginning to consider the possibilities of codifying and assessing standards for online teaching, like those suggested in this guide, through programs that acknowledge proficiency. Unless standards for teaching online are defined, and taken seriously, we will miss the opportunity to ensure that high standards are met and maintained equally across the nation. Just as every student deserves a highly qualified teacher in a bricks and mortar classroom, every student deserves a highly qualified teacher online.

<sup>1</sup> U.S. Department of Education, National Center for Education Statistics. (2003). *Internet Access in U.S. Public Schools and Classrooms: 1994-2002* (NCES 2004-011).





## Opportunities for the Profession

Online teaching can be a boon for teachers themselves, making it possible for educators, like their students, to have access to the professional resources they need to continue to learn. If online professional development is taken seriously and done right, every teacher, novice and

experienced, could have the opportunity to learn from the best. They can be prepared in situations where they can observe master teachers, working with effective strategies in the most challenging of circumstances, and in discussions with those master teachers, reflect on what works or does not work. Online courses also provide a powerful way to enhance teachers' opportunities for quality professional development. Some teachers will take online courses or modules to fill in the gaps in their certification requirements; others to address key topics for their continuing growth. For example, working with its 16 partner states, the Southern Regional Education Board cooperative enlisted state department staff in developing a series of online courses, open to teachers from across the region, including Using Data to Close Achievement Gaps (KY); West Virginia Writing Assessment -Writing Across the Curriculum (WV); Using Technology for Effective Classroom Assessment (MD); Data-Based School Reform (VA); Inquiry in the Science Classroom: Using Internet-Based Data Sources (GA); Transforming the Classroom with Project-Based Learning (SC and TN).

Online networks can also help support novice teachers, during the stressful early years of teaching, in online learning communities that link them with peers and additional mentoring support beyond those found in their home schools. Teachers can also link with other teachers informally through such resources as Tapped In's multi-user virtual environment for professional development (<http://ti2.sri.com/tappedin/>).

Beyond the extra resources available online for teachers, online teaching can provide another important element of teacher learning: it makes the process of teaching public and extends it beyond the school walls. Teaching need no longer be conducted behind the closed door of the classroom. In online courses, the curriculum, the teacher's daily lesson plans, the interaction in the classroom, are all on display, available for capture and replication. Privacy requirements guarantee that student privacy be protected, but, because teachers are rightly accountable, the work of an online teacher is visible in ways unseen before the medium was developed. This visibility can be used to build reflective communities of practice within schools and across the profession.

Finally, and perhaps most positively, online teaching provides ways for teachers to expand their professional roles without leaving the classroom. Teachers who have not had consistent access to quality professional development to develop new skills can now learn best practices online. In addition, teachers can teach to their passions, rather than leaving teaching for administrative positions or new challenges outside the field. The history teacher with a special expertise in the Civil War can teach a module, semester, or year long course to a class of students with backgrounds



stretching from the deep South to New England. A math teacher with special success in teaching Algebra to students with math difficulties can share that teaching skill with students beyond her home school. A German teacher can offer an AP German class even if no students in his school are interested in taking German that year. Experienced master teachers can extend their professional options by serving as online mentors to colleagues and new teachers, even if their local schools have no positions that call upon their using these talents. In short, online teaching can extend the boundaries of the profession, making it more flexible, more creative, and, in a word, more professional.



## Realities and Caveats

These opportunities come with a sense of urgency. We are preparing teachers for a new generation of learners who grew up with computer and Internet technology—millennial learners who use technology in all aspects of their lives, but who still see little significant use of technology to extend their classroom learning. A recent study by the Bell South

Foundation confirms this reality. When students and their teachers were asked about technology use in the classrooms, their perceptions were vastly different, and this disparity grew significantly between 2000 and 2002. As the report stated, “The widening gap between the perceptions of what teachers and students believe is or is not happening in the classroom is a startling red flag.”<sup>2</sup>

Even more significantly, while young people going into teaching today are themselves members of the millennial generation, their teacher preparation programs rarely include courses either about online teaching, or conducted through distance learning. Both traditional and alternative programs for preparing new teachers are missing an important component of preparing new teachers for millennial teaching. Without modeling of effective online teaching, most of the 86,000 new teachers who enter the profession each year begin without online teaching skills in their professional repertoire. This must change.

This guide seeks to help nurture this growing and vital opportunity for education in the United States. By defining the skills necessary for effective online teaching, the authors seek to establish a framework for quality online education. Many of the issues of quality and support that arise in the context of online teaching are familiar because they are similar or identical to issues that have confronted “bricks and mortar” education for many years.

As the field of online courses and online teaching expands and matures, there is a chance to learn from past experience, translate it to the online environment, and, put simply, get it right from the beginning.

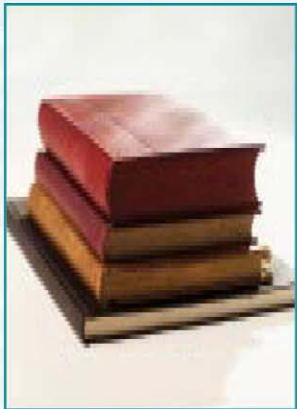
<sup>2</sup> BellSouth Foundation. *The Growing Technology Gap Between Schools and Students*. Atlanta, GA. 2003. [www.bellsouthfoundation.org](http://www.bellsouthfoundation.org).





## Section II

## Developing an Effective Online Education System



### Defining an Effective Online Education Environment

Online education occurs in some form every school day in most schools in the country. Teachers often show or refer students to Internet sites during class, and students commonly consult websites for research. But when this guide refers to online education it is

with a more immersive online experience in mind, one in which students and faculty communicate primarily through electronic means over the Internet. It is important to note that this is not intended as a guide for the array of online teaching models outside the following specifications.

Because the term “online education” covers so much territory, a more precise definition for its use in this guide is in order. As used in these pages, “online education” encompasses the following:

- A planned course of instruction paralleling what might be offered by a middle school or high school, but conducted primarily online.
- Students and teachers separated in time and place. (In some online courses participants may meet face to face on occasion, or speak by telephone, which is likely to become more prevalent as Voice Over Internet Protocol (VoIP) comes into greater use. However, based on the current

situation at the time of this paper’s publication, this guide proceeds from the assumption that most or all interaction is online.)

- Communication between and among students and teachers that can be asynchronous or synchronous.
- One or more instructors who maintain an ongoing teacher presence throughout the course, teaching more than one student.
- Student progress assessed by both formative and summative standards, and student achievement and results reported.
- The course and the instructor(s) are monitored and evaluated.
- A communications system in place that enables teachers, students, parents and administrators to offer feedback, and that permits technical, academic and other support systems to function.
- One or more of the following technologies available:
  - Computer
  - Internet access with a web browser and e-mail
  - Telephone
  - Learning Management System (LMS)
  - Content Management System (CMS)
  - Courses designed in a manner consistent with the NEA Guide to Online High School Courses, available at <http://www.nea.org/technology/onlinecourseguide.html>
  - Courses designed in a manner consistent with the school’s core beliefs and curriculum standards (See next section for recommendations)





## Aligning the System with Core Beliefs on Effective Online Education

Research, experience, and common sense suggest that institutions planning to utilize online education should make pedagogical choices with great care, with a particular focus on selecting or designing courses that take full advantage of the power of the online environment. With that in mind, online courses and the teaching of those courses should be conducted within the following course design standards:

- **Courses should be instructor-led.** A clear and consistent teacher presence is central to successful online course delivery. Teachers can facilitate student learning by working with online students to stay on task and organize their time appropriately to assure success in a virtual environment.
- **Courses should be student-centered.** In online courses, sole reliance on traditional lecture-based learning is impractical. Instead, teachers should serve as facilitators and educational coaches, designing challenging activities and providing effective guidance and quality feedback.
- **Learning should be collaborative in nature.** Online courses should contain small-group activities and team projects where students must collaborate, in order to foster an online community of learners.
- **Coursework should maximize participation flexibility while providing a framework for student pacing.** To accommodate student schedules and provide optimal flexibility over time zones, online courses should be designed so that students need not all be online at the same time. Courses should be asynchronous but scheduled— that is, students must complete established activities within a given time frame. In order to allow students to stay in pace with their classmates, and to help them successfully complete the course in the period allotted, the course should establish a clear framework to guide students in completing assignments in a timely manner. Students' ability to access and work on their courses "24/7" should be an asset for online education.
- **Courses should foster information, communication, and technology skills necessary for success in this century, such as 21st Century and ICT (Information and Communication Technology) learning skills (see, for example, [www.21stcenturyskills.org](http://www.21stcenturyskills.org)).** Online courses should fully utilize the online environment to develop effective online information, communication and interpersonal skills, as well as collaboration and team-building skills. In addition, courses should require students to use inventive thinking skills—creativity, problem-solving, and critical thinking.
- **Course format, expectations and instructions should be clear and concise.** Online courses should be interactive and use the full range of resources and tools offered by the Internet. That effort should include the consistent use of clear and specific directions, and online materials that are aesthetically pleasing. As with quality face-to-



face courses, online courses should set forth clear expectations for students, and include specific grading rubrics.

**Please Note:** Extra attention should be paid to communicate clearly and directly to students the expectations around course performance.

- **Activities and assessments should account for different learning styles.** Because students have unique learning styles, online courses should include activities and assessments that are varied to meet the learning styles of all students.
- **Courses should use the latest best practices.** The body of research into online learning is growing every day. Online courses should be designed and delivered to incorporate best practices.



## Creating an Effective System for Online Learning and Teaching

Online education can fundamentally change the relationship that students, teachers, parents, and the community have with their educational institutions and with one another. For policymakers those transformations pose some difficult choices.

If they ignore online education, they turn their back on their responsibility to extend learning opportunities. If they limit it unreasonably in response to fear of new approaches, constituencies might pursue it outside of traditional institutions, potentially weakening them. If they embrace it too quickly, without proper insight or without preparing their communities, it can disappoint. To succeed, schools need to embrace these new opportunities

and the changes that come with them, but must implement them in a context that is reasonable, practical, and educationally sound.

An effective online education program demands that administrators and policymakers make wise decisions about resource allocation. Just as a traditional classroom teacher should have access to appropriate tools and resources, an online teacher needs certain types of support to succeed. Educators are being challenged to instruct in a very new environment. This environment requires a high level of technological and administrative support and strong guidance on pedagogical practice. Teachers' and students' success in online learning environments rests heavily on the support system provided.

Before launching an online course, school systems would be well advised to consult the National Education Technology Standards for Administrators, developed by the International Society for Technology in Education. The standards, available online at [http://cnets.iste.org/administrators/a\\_esscond.html](http://cnets.iste.org/administrators/a_esscond.html), highlight a number of necessary preconditions for online education success, among them:

- a *shared vision* among school personnel, parents, and the community
- available *technical assistance* for maintaining and using technology
- shared knowledge of *content standards and curriculum resources*
- a commitment to *student-centered teaching*
- a system for *continual assessment and accountability* for technology and learning



- *community support* for online education
- *adequate support policies*, including financial plans and incentive structures to support the use of technology in learning and in operations of the district

By definition, online teaching is done from a distance; however, it should not be conducted in isolation. Online teachers need support to provide quality instruction, just as teachers in “brick and mortar” schools need support. Specifically, online teachers must be provided the following support structures:

1. **Technology Infrastructure.** A school and its district must develop an appropriate infrastructure to support online course delivery for both students and teachers. The infrastructure should include networks and bandwidth to support adequate and consistent Internet access, computers capable of running the course platform and providing Internet access, and a physical location where students and teachers have access to computers and the network. Since students will use online course materials at hours largely of their own choosing, teachers need access to a computer and high-speed access to the Internet both at work and at home.
2. **Technical and Administrative Support.** In addition to hardware and software, schools must provide technical and administrative support for students and teachers. Technical support should include a 24/7 support system for questions. Administrative support should include a grading and registration system that can be easily used by teachers, and school administrators, and accessible to parents and students.

Central administration should provide a student handbook and policies (for example, handling of discipline issues) to support online teachers, students, and parents.

3. **Educational support** should include both online and face-to-face support for teachers delivering online courses, as well as support for their students. There are several components of educational support, including:
  - *Release Time.* District and building level personnel and policies must recognize that the online professional development in which an online teacher is engaged is demanding, and provide the necessary release time for professional development programs and continuing education programs.
  - *Master teacher mentoring and peer coaching.* Learning to teach in a new environment is a significant challenge. During training and early in their online careers, teachers need guidance from experienced online instructors “master teachers”- and support from peers they trust.
  - *Formative evaluation and assessment.* Schools need to develop structures to ensure monitoring the performance of online teachers during their first semester of course delivery and periodically thereafter to ensure quality, quantity, and responsiveness.
  - *Continuous professional development.* In order to meet the continuous advances in the field of online teaching and learning, and to ensure courses and teachers meet changing design and delivery standards, teachers need access to ongoing professional development. Because of the importance of this support element, it is described in detail in section III.



## Section III

## Preparing and Supporting Online Teachers



### Defining Credentials and Skills of Highly Qualified Online Teachers

As with any educational innovation, teachers are at the core of online learning. In the absence of robust professional development, administrative support, access to technologies, and clear guidelines for their evaluation, teachers will be

both reluctant and unprepared to face the challenge of online education.

Even the most talented and experienced school leader faces a difficult challenge when it comes to balancing the responsibilities of providing numerous, equitable, and efficient learning opportunities for all students, with the need to ensure the quality, effectiveness, and appropriateness of those opportunities. Schools should set high standards for their online teachers, and insist that teachers have the credentials that they need to do their job. However, policies that impose unreasonable requirements on qualified online teachers actually reduce the richness and quality of learning available to schools and young learners. For example, some jurisdictions have imposed requirements that restrict online learning opportunities to those led by teachers who hold a valid teaching license from a specific state. Such requirements can unduly constrain student and teacher

educational opportunities, reduce potential return on enormous investments in technology and connectivity for improved schooling, and reduce options for this most promising strategy for increasing quality educational opportunities for America's students. How can today's students become members of a global community of learners if they are not given access to teachers and peers beyond the state line?

It is essential that educators who instruct online are not only proficient in their subject area, but also specifically prepared for the unique challenges of online instruction, and adequately supported in their online pedagogy. For that reason, online teachers should maintain licenses, credentials and other documentation that arm school leaders with necessary evidence of their qualifications. They must maintain a valid state or national teaching license for the level, audience, and content of their assignment. In addition, online teachers should be prepared to provide specific evidence to school leaders demonstrating that they:

- are prepared well to use modern information, communication, and learning tools
- are motivated self-starters who work well without constant supervision
- are student-centered and flexible, while maintaining high standards
- are able to promote online dialogue to deepen the learning experience



- foster community-building virtually and facilitate collaborative learning
- are able to collaborate with students and student support staff/systems to further student participation and success in the online course
- specify learning objectives, and design activities and authentic assessments to measure mastery of the stated objectives
- are able to use adaptive technologies to meet individual student needs
- possess a sense of humor and are able to “project” their personality through developing an “online voice”
- exhibit mastery of the online environment(s) and the learning/content management system(s) to be used
- are effective in written communications
- have completed professional development specifically geared to teaching online

**Section IV of this guide contains a more detailed description of online teaching skills.**



## Defining and Implementing Effective Professional Development for Online Teachers

As it does for all educators, professional development plays a vital role for online teachers when it comes to maintaining mastery of both subject matter and instructional methods. To ensure quality, providers of online learning must ensure that educators have the time and resources to fully prepare for the challenges of the online environment. An effective professional development model for online educators should reflect the following principles and components:

- The model’s instructional approach should be based on research *on effective online pedagogy and delivery*.
- *Recruitment of teachers* should focus on candidates who possess the qualities necessary for effective online teaching and who are willing to make the time commitment necessary to learn to teach effectively online.
- *At least some of the training should be delivered* in the online medium and in the “model the model” design, so that educators experience for themselves the medium and the methods they will be expected to employ.
- *Standards for course development and delivery* must be exacting and measurable, and they must be observed.



- Online teachers should receive help from identified mentors or “*master online teachers*,” during training and through initial course delivery.
- Online teachers should be expected to *practice and demonstrate mastery* of all aspects of online teaching, from modifying lessons to facilitating discussions and grading assignments.
- *Ongoing professional development* modules should be available so teachers can be trained in new methods as they develop.

Professional development training should provide teachers with training and practice in the following areas:

- *Appropriate communications.* Online teachers must develop an appropriate online “voice” because students do not have the advantage of facial expressions or body language.
- *Appropriate and timely feedback.* Because online courses do not always have a “scheduled meeting time” that would allow teachers to address specific student concerns in a joint setting, teachers should reply promptly to student questions. Teachers should complete grading and give feedback on assignments in a timely manner, as well. Professional development should stress these requirements and provide teachers with the tools to meet them.
- *Facilitated discussions.* Teachers must be trained to be effective online facilitators and need to practice this skill while in training. In delivery, mentors need to monitor facilitation and provide feedback to the instructor.
- *Facilitation of teamwork and multimedia projects.* The barriers to effective group-work are multiplied by the distance barriers of online

teaching. Therefore, teachers must develop effective strategies to use small group activities in their courses. For example, teachers need to develop timelines for group activities that acknowledge the challenges of working online across time zones. They need to provide students with ways of forming teams when proximity or friendship are no longer the criteria for selecting team members.

- *Adaptation of curriculum and materials.* So that online teachers will be fully prepared to meet students’ needs, they should be trained to adjust course materials and curricula in order to maximize effective learning.
- *Adaptation of online tools to support effective instruction.* In order to maximize the effectiveness of the online instructional environment, teachers should be proficient in the selection and use of a variety of online instructional tools, including synchronous and asynchronous communication methods, text-based and multimedia-rich documents and simulations and hands-on laboratories.

A robust professional development program, complemented by the help of mentoring by “master teachers,” should empower classroom teachers to become effective online teachers. Because of the unique “24/7” nature of online education and the geographic distribution of online teachers and participating schools, traditional methods of professional development a day or two of face-to-face training - are not reliably effective. In most cases, therefore, the professional development program should be conducted at least in part online - in the medium in which the teachers are to deliver their courses.





## Evaluation and Assessment of Online Teaching

Peer and self review are a critical component of professional growth. Online teachers should be afforded the same opportunities for review and evaluation as are given to face-to-face classroom teachers. The challenge is in developing the ability of administrators to evaluate the online teaching medium and to identify effective online teaching. Administrators need to learn how to review online course delivery, looking for and evaluating teachers' skills in developing online communities of learners, fostering online discussions and team activities, effectively using online course delivery tools like grading books and enrollment systems, creating an effective online voice and presence, providing adequate and frequent feedback to discussions and student work postings, keeping course content up-to-date, modifying online course content to meet individual student needs, and effectively selecting and using appropriate online tools to support online instruction. Most administrators currently have little experience with online course delivery, and would be at a loss to evaluate online teaching. Professional development will be required to give administrators the necessary skills they will need to appropriately monitor, evaluate and support online teaching, so that online teaching benefits from meaningful evaluation and guidance.



## Preparing the Next Generation of Online Teachers: Preservice Education

Teacher preservice has not traditionally included a required element of online instruction. In fact, many preservice programs still do not require future teachers to take even a single course in how to instruct online. But now that online education holds out the promise of quality instruction on a range of diverse subjects to even the most remote locales, the absence of required preservice training in online teaching skills must change. The same standards of effective online course design and delivery as well as appropriate training of the online teacher must be applied to preservice online courses. By modeling effective online course design and delivery, preservice teachers can best gain the necessary skills they will need to become effective 21st century teachers. At a minimum, preservice training for online teaching should include:

- Evaluating Internet resources for validity of content
- Respecting and enforcing copyright concerns, including Technology, Education, and Copyright Harmonization (TEACH) Act provisions
- Identifying outstanding educational websites for both teacher and student reference
- Issues of accessibility and Section 508 compliance, including adaptive software for the physically, visually and hearing impaired



- Employing appropriate “etiquette” and observing Acceptable Use Policies
- Learning to develop lesson plans that foster Internet research skills in students

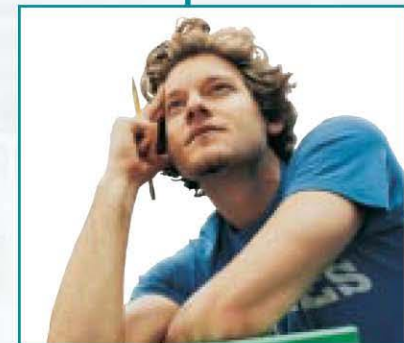
Preservice teachers should also take at least one required online course on pedagogy and practice in online courses. The elements of the course should include:

- Practice in and discussion of the relative merits of asynchronous versus synchronous discussions
- Instruction and practice in facilitating online discussions
- Instruction and practice in “community building” exercises, including small group collaborative assignments
- Student as Instructor experience, where pre-service students have the opportunity to design and deliver course content
- Meta-cognitive analysis of online group projects, including the examination of the process as well as the product
- Creation of original online lessons for teams of colleagues to complete and provide feedback

Pre-service online “student teaching” experiences might include:

- Research on online instruction in the preservice teacher’s academic discipline and on the learning and behavioral characteristics of the grade level of the students the novice teacher will instruct
- Experience with and research into different delivery platforms, and examination of the pros and cons of each

- Experience with self-paced “demos” of courses
- Auditing professional development training for online instructors
- Student-teaching opportunities in online classes—a 15-week commitment in which a student learns course content, is mentored by an experienced online instructor, and with constant supervision by a “master teacher” of record, has the opportunity to “practice teach” online









## Section IV

# Skills of Online Teachers

In hiring, evaluating, and supporting online teachers, administrators should establish certain expectations. Online teachers should be expected to demonstrate the following skills, and administrators should know how to recognize the mastery of those skills:

| SKILL  | SKILL DESCRIPTION  | EXAMPLE OF SKILL USE   |
|--|--|--|
| Understand the language of online education.   | Online teachers should be familiar with online tools and online infrastructure, including Learning Management Systems (LMS) and Content Management Systems (CMS), and they should understand the appropriate uses of each system to support online course design and delivery.                         | Online teachers should understand how to use the grading features within the online course platform.   |
| Revise/write course documents in CMS.  | Online teachers should be able to make appropriate use of the CMS platform's features, producing documents that are well organized for use by students, and that are kept up-to-date during course delivery.   | Teachers should have sufficient facility with CMS to revise course documents to meet students' learning styles and needs.  |
| Use CMS elements effectively to facilitate course design.                                      | Online teachers should be familiar with the full range of CMS elements, and be able to select the appropriate elements while designing and teaching online courses.  | Online teachers should know when, how and what types of discussion areas to use to foster student-to-student interaction during online course delivery.  |
| Design, evaluate and deliver online course to appropriate online design and content standards. | Online teachers should be familiar with online design and content standards, have the ability to determine which standards are appropriate for their course design and delivery needs, and be able to demonstrate use of design and content standards in course-document creation and course delivery. | Online teachers should be aware of Section 508 requirements that online learning materials be accessible for people with disabilities, and should assure that the design and delivery of online courses include appropriate text explanations of online course videos, audios, and graphics. |



| SKILL  | SKILL DESCRIPTION  | EXAMPLE OF SKILL USE   |
|--|--|--|
| Use technology to support course design.                       | Online teachers should be able to demonstrate an ability to use multimedia, as appropriate, in course materials, in ways that comply with Section 508 requirements.  | Online teachers who use a video clip to demonstrate a scientific principle should be able to incorporate the clip into the online learning platform in such a way that students may easily access the clip without long download times. In addition, the clip should be accompanied by a textual explanation that meets Section 508 compliance requirements. |
| Revise course documents to maintain accuracy and currency.     | During course design and course delivery, online teachers should be able to revise course documents to keep them up-to-date and accurate.  | Online teachers should be adept at revising online course documents and at maintaining up-to-date Internet links in online course documents. Online teachers should review course documents at least once a semester during course delivery to make sure Internet links still point to active URLs.  |
| Incorporate Internet resources into course documents.          | Online teachers should be able to demonstrate an ability to search and use Internet sites so that links to them can be incorporated into course documents. They should be able to employ CMS features to use and appropriately reference web sites, and have the Information Literacy skills to determine which sites are legitimate and of sufficient merit for inclusion.  | Online teachers should be able to incorporate website links into course documents instead of simply copying and pasting material from the website into a given course document. Moreover, they should know how to give appropriate copyright reference in online course documents.   |
| Communicate an appropriate online tone during course delivery. | Because online communications may lack the full array of visual and oral cues that help listeners interpret speakers' messages, it is important that online teachers be sensitive to problems of misinterpretation, and that they are careful to use an appropriate online tone in course design and course delivery. Moreover, they should be able both to model an appropriate tone, and to guide students toward an appropriate tone when they stray. | Online teachers should know how to use emotions in online communications, so that students are not confused when teachers make a joking reference, and should quickly intervene if online dialogue turns disrespectful.  |



| SKILL   | SKILL DESCRIPTION  | EXAMPLE OF SKILL USE   |
|---|--|--|
| Foster student-to-student discussion.   | Online teachers should foster student-to-student discussion during course design and delivery. During the design phase, online teachers should build in course discussion as a feature of student assessment. Their instructions for when, where, and how students participate in online discussions should be clearly communicated. During course delivery, online teachers should facilitate course discussions by intervening appropriately when discussions are either not occurring or are inappropriate.   | Online teachers should facilitate online course discussions during course design by writing leading questions to jump-start student discussions.   |
| Foster student-to-student collaboration.  | Online teachers should foster student-to-student collaboration through the use of online discussions, group projects, team activities, and instructional style. They should demonstrate skill at facilitating discussions, and be reliable guides to student learning.   | When student discussions stray from the topic, online teachers should be able to intervene appropriately to return the conversation to the appropriate issue.  |
| Provide appropriate and timely feedback to students.  | Online teachers should monitor student learning, and provide students with feedback on their performance. Teachers should be adept with the various platform features so that they can provide students the opportunity to submit their work online. They should review submitted work in a timely fashion (usually within one week of submission), and should provide students with feedback.   | Online teachers should provide clear instructions to students on how to submit a research paper online, provide rubrics on how the paper will be graded, follow the rubric when grading, and return the paper with comments to the student in a timely manner. |
| Participate and be present in an online course, meeting student needs and school expectations for teacher presence. | Although it is an important advantage of online instruction that students may sometimes interact with Internet materials and complete assignments at times of their own choosing, it is vitally important that online teachers be active and regular participants in their classes. They should take part in class discussions, review submitted work promptly, respond to student questions on a regular and consistent basis, and schedule online meeting times, as needed. One appropriate expectation of online teachers is that they should attend their online class on a daily basis, and respond to student questions expeditiously. | Online teachers should log into the course every day, review student questions and respond to them, review student discussions, and review and provide feedback to students on work submitted since the previous day.  |

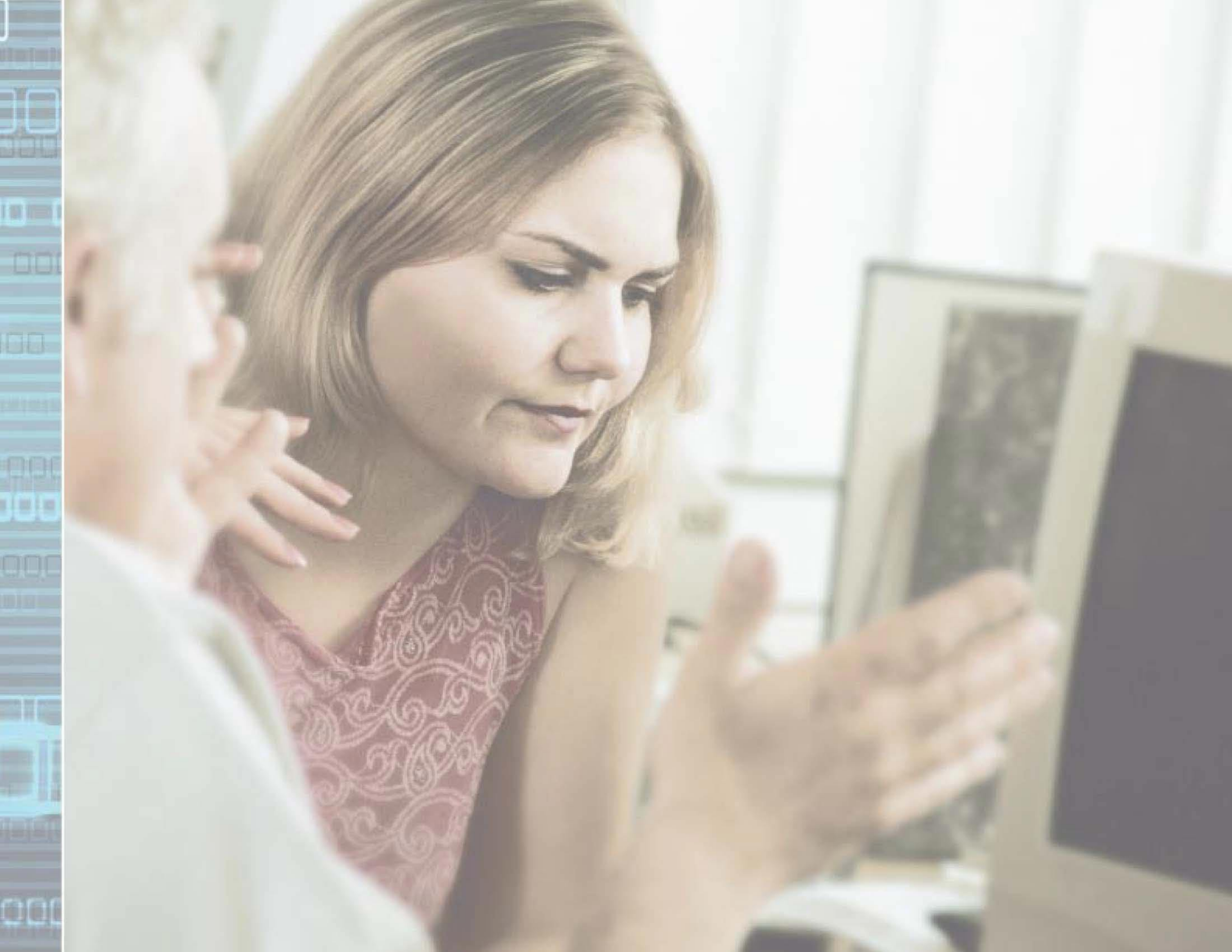


| SKILL  | SKILL DESCRIPTION  | EXAMPLE OF SKILL USE   |
|--|--|--|
| Intervene appropriately when students misbehave online.  | Online teachers should foster appropriate online student behavior, model an effective and respectful online tone, guide discussions' tone and substance, and address problems with inappropriate online behaviors such as "flaming."   | Online teachers should be prepared to respond to postings from students that belittle the opinions of others, asking that the posts be modified.   |
| Communicate appropriately with students in one-on-one and group settings.  | Online teachers should demonstrate the appropriate use of both synchronous and asynchronous communications with students, using one-on-one communications when needed, and fostering and guiding group discussions.  | Online teachers should establish private discussion areas for each student, so that student and teacher may discuss concerns that need not be part of more public discussions—concerns about grades, personal matters affecting course performance, or other matters that they do not wish to share with their classmates. |
| Communicate with students, parents, school administrators, and other teachers via a variety of online and traditional means. | Online teachers must be able to communicate with a number of other stakeholders through a variety of methods, some online, some not.   | An online teacher might communicate with the parents of a particular student via email or telephone, and with the administrators and teachers of the student's school through the use of the online grade book, email, or website.   |
| Provide course materials to students in a timely manner.   | Online teachers should be able to provide course materials to students in a timely manner, so that students have all course materials when needed. These include physical materials that may be mailed to students at school or at home, or electronic materials in the form of reference works or Internet links. | Online teacher maintains currency of course materials.   |



| SKILL  | SKILL DESCRIPTION  | EXAMPLE OF SKILL USE   |
|--|--|--|
| Track whether students are registered/enrolled in the course.  | Because the online environment poses unique challenges, online teachers must pay particular attention to the course enrollment process, be able to determine which students are enrolled in the online course, and know how to add and drop students from the course. The same software used for enrollment procedures is often useful in structuring activities for the course. | At the beginning of the course, teachers should review the online enrollment/registration system, determine how many students are enrolled in the course, and then use that information to form online teams of students for some activities.  |
| Keep track of student participation in online course.  | Online teachers should have the facility to track student participation in the course, viewing course logs, student postings in the discussion area, and student assignments.  | Online teachers should regularly review and grade student participation in course discussions, and base a portion of a student's grade on the level and quality of student participation in course discussions. Some teachers will post student discussion grades for students to review.                |
| Provide students with basic technical support services, recognizing which issues should be forwarded to technical support teams. | Online teachers should be able to answer student questions on certain technical issues, including posting to discussions, submitting assignments, using the Internet, and viewing online grades.   | Online teachers instruct students in submitting their online assignments, assisting students with difficulties by clarifying the instructions, or providing support by phone or email. They should determine whether a technical problem is more appropriately forwarded to technical support personnel. |







## Section V

## Future Considerations and Next Steps



Well prepared and well supported educators have always been the key to educational success, and this clearly extends into the online world. Online educational offerings are expanding exponentially, and the defined lines between online education and face-to-face education are beginning to blur. The need to maintain and define quality teaching in this evolving medium is critical. Teachers play a

pivotal role, but policymakers and administrators also have an essential responsibility for ensuring an environment where teachers can perform at their highest levels. Policies must encourage and facilitate quality online instruction, and the infrastructure must seamlessly support it.

Our core values for quality instruction don't change significantly in the online world, but the means and requirements to accomplish them may. Regulations and practices that only anticipated face-to-face instruction must be examined, modified, or discarded if appropriate, to ensure quality in the online world. Support systems and infrastructure that enabled face-to-face teachers may not meet the needs of those instructing online. Shoe-horning criteria that don't naturally fit into the online world will only stymie progress and lower the quality of instruction provided. New criteria and requirements, geared specifically to the online arena, at times may supplement, or supplant, those rooted to a face-to-face environment.

### Role of Statewide, Regional, and National Accrediting Agencies

- Accrediting agencies for schools should include online offerings in their assessment of schools' programs. Such factors as teachers' preparation to instruct online, technical infrastructure, and student support systems should all be examined.
- Bodies that accredit teacher education institutions and programs should include analysis of their competency to equip new educators to instruct online. It is highly likely anyone coming out of a teacher education institution in this century may be called upon to instruct online, or to at least incorporate online instruction into their practice.
- Teacher licensure bodies should include ability to instruct online in their evaluation of those attempting to enter the profession.

### Considerations for Local, State, and National Policymakers

We can only embrace the opportunities this new medium offers if we are also willing to assume the responsibilities it poses. Education professionals at all levels, as well as policy makers, have immediate responsibilities to meet these challenges.

1. Current practitioners and new entrants to the profession will have to:



- Acquire new skills and new expectations of the educational practice
- Pursue professional development opportunities to prepare them for their new roles
- Develop agreements with their employers on the amount of instructional and preparation time they will be allocated
- Develop agreements about the intellectual property rights of courses delivered online
- Continuously mentor new entrants into this new teaching and learning environment
- Collaborate with colleagues and administrators to develop new strategies and support systems for delivering online education

## 2. Administrators and policymakers will have to address:

- Credentialing requirements. Those instructing online should be licensed in a subject area, but if they are teaching across state lines, failure to be licensed in a specific state should not block their authority to teach online in that state
- Local and/or state requirements that assume physical classrooms. For instance, instructional time should not be read literally to mandate specific time spent in a physical building, "seat time," if educators are working in a virtual environment
- Pre-service teacher education programs. In today's world all new educators should be equipped to instruct online. Accreditation requirements for teacher education institutions should include such provisions

- Extensive in-service professional development. Those already in the teaching force should be prepared to instruct online, and to incorporate aspects of online instruction into their face-to-face courses
- Professional development for those supporting online teachers. Face-to-face mentors are important members of the online learning experience in many models, and they need professional development for the roles they play
- Technical infrastructure and support systems. Reliable, robust frameworks must be in place to meet the demands of online instruction. Dependable technology and support are thresholds for effective online instruction
- Integrated, comprehensive planning. Long-term planning for both educational programs and physical infrastructure should anticipate the needs of online teachers and students. Quality online teaching is dependent upon a strong policy and physical infrastructure

Quality teaching occurs between a teacher and a student, but rests on a strong support system. As states and localities investigate and implement online learning plans, they must constantly ensure that both the physical and policy infrastructure maintain and encourage quality online teaching. Educators must adapt to new demands and acquire new skills. These are exciting and dynamic times as technology opens new means and venues for learning. The framework for how this occurs is being constructed, and quality teaching must be its underpinning.



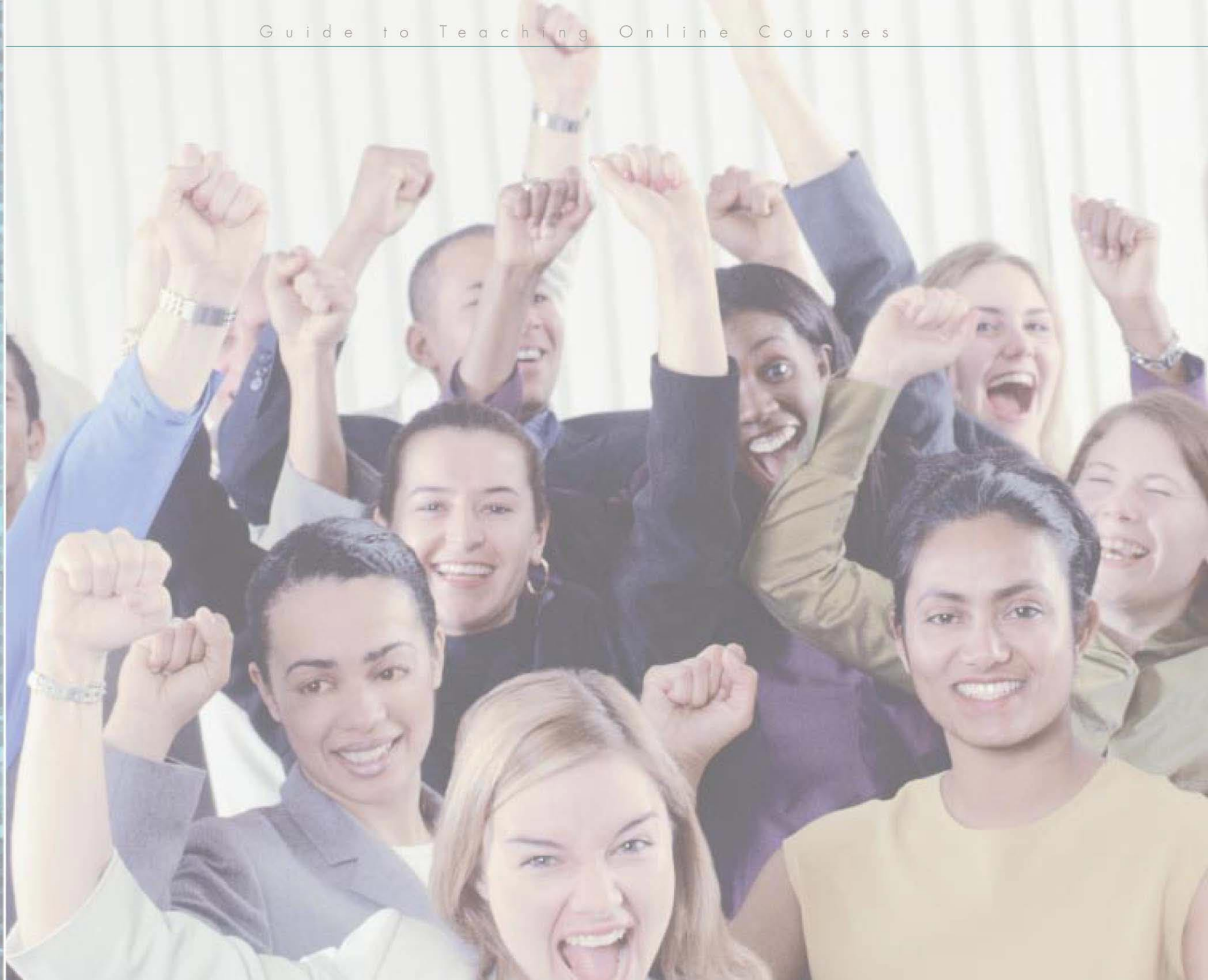
**Local Policy Recommendations:**

- Ensure educators who instruct online receive comprehensive preparation for this medium
- Develop language for determining the intellectual property rights to online courses
- Provide parents and students background information on the challenges and responsibilities of pursuing online courses.
- Allot educators adequate preparation time for the development and delivery of online courses
- Ensure educators have the technical infrastructure and technical support prior to initiating online education
- Develop accountability mechanisms that assume instruction may occur beyond the normal school building or normal school hours

**State Policy Recommendations:**

- Adopt policies that reflect teaching and learning may occur beyond the normal school building walls
- Develop teacher accreditation program criteria and teacher licensure criteria that ensure some pre-service preparation for instructing online
- Ensure that state licensure requirements accommodate online courses that may be taught by licensed out-of-state educators
- Expand professional development programs to prepare a cadre of educators who can effectively instruct online
- Develop state policy for determining quality and acceptability of online programs.
- Investigate options that utilize online education to enhance school districts ability to offer a wide variety of courses







## Notes

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