Web-based Information Science Education (WISE)

A MODEL FOR QUALITY ONLINE EDUCATION IN LIBRARY AND INFORMATION SCIENCE

Principles and Metrics for Effective Online Teaching and Learning

As the number of online education programs in library and information science (LIS) grows, defining educational quality in this mode becomes an increasingly important task. The intent of this document is to review and define quality online education for LIS. It is a working document, one that will evolve as our understanding of effective online teaching and learning expands and deepens.

The principles and metrics for effective online teaching and learning presented here are intended to serve as a foundation which will guide WISE members as they plan and administer quality online education, in the spirit of continuous improvement. More broadly, these principles and metrics may contribute to the LIS education community's role in leading educational initiatives. Principles and metrics are defined in the context of online courses and programs, not in comparison to campus programs. The members of WISE believe that online courses and programs are a pedagogically sound method of delivery, independent of other delivery formats.

Recognizing that not all Schools offering online courses have online programs, this document is divided into two key areas: at the course (C.) and the program (P.) level. The program is defined as a school that offers a sufficient number of courses in a degree in online format such that students do not need to be in residence at the university. These areas are further subdivided by: administrative and technical support, faculty, learning effectiveness, and students. Descriptions of each area, including quality metrics, are presented below.

C. PRINCIPLES AND METRICS RELATED TO COURSES

C1. Administrative and Technical Support

C1.1 The school supports the research and development of the emerging technologies in online education.

> C1.1.1. Course software is
> - Accessible
> - Intelligible
> - Reliable and stable

> C1.1.2. Schools provide prospective students with adequate information about expectations and prerequisites (knowledge, software, etc.) and support to be successful.
> - Schools provide faculty with adequate technical support.
> - Schools provide contact information for questions and concerns clearly posted with indications of the expected response time (usually within 24 hours).
> - Technical support is respectful, supportive and timely.
> - Schools provide students access to technical assistance, including detailed instructions regarding the media used, practice sessions prior to the beginning of the course, and convenient access to technical support staff.

C1.1.3. A documented technology plan that includes electronic security measures (i.e., password protection, encryption, back-up systems) is in place and operational to ensure both quality standards and the integrity and validity of information.

C1.2. Access to library resources is effective.
- The university library is responsive to the online student information needs.
- Online students have effective access to library resources.
- Students are provided with training and information to aid them in securing material through electronic databases, interlibrary loans, government archives, news services, and other sources.

C1.3. There is a clear policy on ownership of course materials developed for online education courses; this policy is shared with all faculty and staff involved in online education at the institution.

C2. Faculty

C2.1 Faculty are well prepared and supported to teach online.

C2.1.1 Faculty have access to and participate in training, mentoring, and sharing experiences. For example:

- Faculty engage in a variety of educational development opportunities (conferences, tutorials, workshops, mentoring networks, etc.).
- Faculty are flexible and have strategies to be able to adapt to changing technological and pedagogical situations.

C2.1.2 Faculty have access to resources (including staff) at their home institutions to find answers to questions and problems related to pedagogy, administration, course development and technical issues. For example:

- Faculty are supported in the transition from classroom teaching to online instruction and receive feedback during the process, including release time, training, and access to pedagogical and technological resources.
- Faculty receive responses and solutions to technical, administrative, and student services questions within 48 hours.
- Faculty training and assistance, including peer-mentoring, continues though the progression of the online course.
- Faculty engage in and/or consider research related to online education.

C2.1.3 Faculty are able to meet the diverse needs of students. For example:

- Faculty communicate effectively with students by providing clear information (syllabi, learning outcomes, weekly schedules, assessment criteria, etc.) and timely responses.
- Faculty facilitate community building.
- Faculty have information about and support to make courses accessible to students with disabilities.

C2.2 Faculty regard online education as a part of their personal and academic goals for teaching excellence.

C2.2.1 Faculty
- have opportunities to consider the online learning experience
- are surveyed at least annually about their experience with online pedagogy, resources, and curriculum.

C2.4 Evaluation

- Student assessment is related to learning outcomes and is clearly articulated.
- All coursework that is submitted by students for a grade is reviewed, commented upon, and returned typically within one week's time.
- Faculty provide opportunities for assessment through: exams, written work, group projects, student presentation, participation in discussion, debates, portfolios, etc.
- Student inquiries are usually responded to within 48 hours. This is stated in the course policies within the course materials.
- Faculty include policy information related to academic integrity in course materials.

C3. Learning Effectiveness

C3.1. Course design promotes learning effectiveness

    C3.1.1. Course objectives and intended learning outcomes are clearly articulated and the online course design reflects these.

    C3.1.2. Intended learning outcomes are reviewed regularly to ensure clarity, utility, and appropriateness. Means of assuring quality may include:
- Course and curriculum review by faculty or committee
- Regular review of course evaluations completed by students
- Consultation with employers and alumni
- Review of statements of core competencies from professional associations related to the subject scope of the course

    C3.1.3. Course materials provided to students support fulfillment of course objectives and intended learning outcomes
- Course materials may included texts, supplementary readings, lecture materials, and other web-based resources
- Syllabi are clear, easy to navigate, and error-free. They are precise in stating: course schedule and due dates for assignments; course objectives; intended learning outcomes; and administrative policies such as expectations for academic honesty, and procedures to be followed for accommodating students with disabilities.

- To improve cross-cultural verbal communication and avoid misunderstanding, the course makes an effort to reduce or avoid the use of jargon, idioms, ambiguous or cute humor, and acronyms.
- Expectations for faculty-student communication within the course are clearly established. Course materials state when students can expect feedback from the instructor including faculty responses to discussion boards, emails, phone calls, and assignments.

C3.1.4. Course design includes a residency and/or synchronous sessions if needed to satisfy the course objectives and achieve intended learning outcomes.

C3.1.5. Courses take advantage of the benefits and opportunities the online environment offers. These may include:
- Online tutorials to introduce various technologies and tools
- Virtual labs
- Experts from the field as virtual guest speakers/lecturers
- Web resources
- Opportunities for students to share perspectives from their distinctive local situations
- Archived course materials, bulletin boards, and synchronous activities

C3.1.6. Learning styles are considered in the pedagogical and technological design of the course.
- Learning styles are best engaged by using a variety of media and activities to achieve learning outcomes.
- Selection of media may depend on the nature of content, learning goals, access to technology, and the local learning environment.

C3.2. Learning experiences based on interaction and collaboration support learning communities while building networks to enhance learning outcomes.

C3.2.1. Information and communication technologies are used to enhance interaction. Student-to-student, student-to-content, and faculty-to-student interaction are enhanced by taking advantage of a variety of technologies, that may include:
- Discussion boards
- Chat rooms
- Mass emails to class members
- Streaming audio and/or video
- Instant messaging
- Blogs
- Wikis

C.3.2.2. Course activities are used to foster interaction and a sense of community. Activities may include:
- Participation in course discussion boards
- Group activities (large and small groups)
- Debates
- Student presentations
- Residency periods

C.3.2.3. Class sizes recognize the challenges of teaching and learning online, and the effect of numbers on interaction.
- Online course section size generally range from 10 to 25 students.
- Larger classes must be managed by such strategies as breaking the class into smaller sections, involving additional instructors or teaching assistants in the course, or committing sufficient faculty time to ensure adequate faculty-student interaction and prompt feedback on assignments.

C.3.3. Faculty and staff pay attention to factors that can enhance the quality of the learning experience for the student.

C.3.3.1 The learner is actively engaged.
- Courses encourage active participation and knowledge construction.
- Where appropriate, learning outcomes relate to real-life experiences through simulation and application.

C.3.3.2. Learning environments include problem-based as well as knowledge-based learning.
- Problem-based learning involves higher order thinking skills such as analysis, synthesis, and evaluation.
- Knowledge-based learning involves recall, comprehension and application.

C3.3.3. The course's educational effectiveness and teaching/learning process is assessed through an evaluation process that uses several methods and applies specific standards.

C4. Students

C4.1. Students are satisfied with online courses. Students:
- Are familiar with and comfortable with the pace, rhythms, and learning objectives of the online class
- Actively contribute to the learning community in a collegial manner
- Receive feedback, participation, and communication with faculty and students in the online class
- Take an online class to enrich their academic program

P. PRINCIPLES AND METRICS RELATED TO PROGRAMS

P1. Administrative and Technical Support

P1.1. The school provides administrative support and resources for the online education program which includes but is not limited to research and development of emerging technologies, and student and faculty services.

P1.1.1. The school has an organizational commitment to quality and effectiveness. For example:
- The program fits into the mission, goals, and vision of the school.
- The program has a sustainable business plan. This includes adequate resources for funding costs and mechanisms to return revenue from the University to cover program costs.
- Administrative processes such as admissions and registration are readily accessible to online students, and program materials clearly describe how access is obtained.
- Throughout the duration of the program, students have access to technical assistance, including detailed instructions regarding the media used, practice sessions prior to the beginning of the course, and convenient access to technical support staff.
- The School has designated an individual with administrative authority to be responsible for insuring quality online.

P1.1.2. The online program is reviewed and accredited or approved regularly. For example:
- The parent institution conducts periodic reviews of online programs.
- The program is accredited by a state board (e.g., New York State Department of Education)
- The program is accredited by a regional accreditation board (e.g., Middle States Association of Colleges and Schools)
- The program is accredited by a professional association (e.g., American Library Association)

P1.1.3 The school is an active member of a national organization in online education, and/or the school maintains membership in an online education review consortium (e.g., Sloan-C)

P2. Students

P2.1. Student satisfaction with the online education program.

P2.1.1. Students are satisfied with program administration. Students:
- Have an assigned and available advisor and/or mentor
- Have opportunities for internships and practica
- Have ready access to career support
- Have access to an orientation which includes an assessment of their ability as an online learner, familiarity with online course delivery and the learning management system, and general expectations of the program

P2.1.2. Online education courses are scheduled to allow students to complete degree requirements in a timely fashion. For example:
- Courses are offered with sufficient frequency and predictability.
- Expected or average time-to-degree is available to prospective students.

- Cohorts have access to at least two classes each term. The presence of multiple cohorts requires additional course offerings.

P2.2. A learning community is fostered that extends beyond the online classroom.

    P2.2.1. Factors that contribute to a sense of community in online education can include:
- Formation and identification of cohort groups
- Virtual spaces allotted for students only
- Membership in community discussion listservs and/or discussion boards
- Residency periods

    P2.2.2. Access to student groups is enjoyed by online students. Examples include:
- Student membership in professional groups (ALA, ASIST, SLA etc.)
- Participation in local student organizations and committees.
- Access to special events such as symposia and lectures.

    P2.2.3. Eligibility for student awards and scholarships to support online students.

Online Education Resources (available online)

American Distance Education Consortium. ADEC Guiding Principles for Distance Teaching and Learning. http://www.adec.edu/admin/papers/distance-teaching_principles.html

Institute for Higher Education Policy, The. Quality on the Line: Benchmarks for Success in Internet-Based Education, April 2000. http://www.ihep.com/Pubs/PDF/Quality.pdf

Khan, Badrul H. Discussions of E-Learning Dimensions, Commentary.   May/June 2003. http://ts.mivu.org/default.asp?show=article&id=1019

Multimedia Educational Resource for Learning and Online Teaching (MERLOT). http://www.merlot.org

New York State Department of Education. Good Practice in Distance Higher Education. http://web1.nysed.gov/ocue/distance/practice.html

Sener, John. Online Learning: Myths, Realities, Pathways to Reform. 2002. http://www.online.uillinois.edu/oakley/Sener_16Aug02.doc

Sloan Consortium, The. A Consortium of Institutions and Organizations Committed to Quality Online Education. Effective Practices. http://www.sloan-c.org/effective/index.asp