Scholarly research that informed and supported the development of the 2011-2013 Quality Matters Higher Education Rubric

The references documented here expand the body of scholarly literature compiled in 2005 and 2008 in support of the QM Rubric standards

Completed by Kay Shattuck and William C. Diehl during the 2010/2011 Winter

(References focused on single standards are at top of list. A few pre-2008 references have been included.)

General Standard 2	
Swan, K., Matthews, D., Bogle, L., Boles, E., & Day, S. (2010). Linking online course design and implementation to learning outcomes: A design experiment. [2010 QM Research Grant University of Illinois Springfield]	The findings suggest that revising a course around stated objectives resulted in better student outcomes related to them, especially concerning the ability to write a research proposal. The authors believe that student performance may have improved because the QM revision led instructors to focus on objectives and the mapping of objectives to outcomes, and that such focus translated into their activity in the course. This possibility will be explored further through qualitative means. Finally, it should be pointed out that findings concerning course outcomes support the notion that the QM and CoI frameworks are orthogonal in nature.
Rossin, D., Ro, Y.K., Klein, B.D., & Guo, Y.M. (2009). The effects of flow on learning outcomes in an online information management course. *Journal of Information Systems Education, 20(1*), 87-98.	Flow is defined as a "psychological state associated with improvements in task performance, on learning outcomes. " The study indicates that students tend to engage themselves with the process of learning when tasks in an online class are challenging and interesting. For flow to occur and learning objectives to be met there are 3 characteristics that must be present: "(1) goal clarity, (2) feedback, and (3) a perceived balance of challenge and skill." When these 3 characteristics are met in an online class past studies have shown that the information gained by the students is memorable enough to be incorporated into the knowledge base of the student.
Hu, H., & Gramling, J. (2009). Learning strategies for success in a web-based course: A descriptive exploration. *Quarterly Review of Distance Education, 10*(2), 123-134,250.	This journal article discusses a content analysis of survey responses from students and focused on student learning strategies in an online course. The authors found that students "considered goal-setting/time- or effort-management and cognitive strategies the most helpful ones for them to perform successfully in the course." The authors provide insights that may pertain to instructors and designers and they suggest future research ideas.
Wang, Y, Peng, H., Huang, R., Hou, Y., & Wang, J. (2008). Characteristics of distance learners: research on relationships of learning motivation, learning strategy, self-efficacy, attribution and learning results. *Open Learning, 23*(1), 17-28 DOI:10.1080/02680510701815277.	Study done in China looked at relationship among self-efficacy, learning strategies and learning results. Recommendations from results include importance of specifying learning objectives to help with improving and promoting the level of the learner's learning strategy" (p. 26)

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General Standard 3

Grabe, M., Flannery, K. & Christopherson, K. (2008). Voluntary use of online study questions as a function of previous minimal use requirements and learner aptitude. *The Internet and Higher Education, 11* (3-4), 145-151.	This article focuses on voluntary online self-assessment questions and their use in relation to examination performance. The conclusions were that students who received points used the self-assessment more, less able readers made less use of study questions than more able readers, and less able readers performed better on examinations when they were given points for completing the questions.
Xiao, Y., Lucking, R. (2008). The impact of two types of peer assessment on students' performance and satisfaction within a Wiki environment. *The Internet and Higher Education, 11* (3-4), 186-193.	This article focuses on the use of a wiki when used for peer assessment. Findings indicate that there was value added through the use of the wiki collaborative environment.
Kirkwood, A. & Price, L. (2008). Assessment and student learning: a fundamental relationship and the role of information and communication technologies. *Open Learning, 23(*1), 5-12 DOI:10.1080/02680510701815160.	"Appropriately designed assessment that exploits the potential of ICT [information and communication technologies] can change students' approaches to learning." The authors argue "that ICT can enable important learning outcomes to be achieved, but these much be underpinned by an assessment strategy that cue4s st6udents to adopt a suitable approach to learning" (p. 5). The authors state, "Assessment items should direct learners to those aspects of a course that are of primary importance because they *are* essential for successfully achieving the eLearning outcomes" (p.12).
Yates, R., & Beaudrie, B. (2009). The impact of online assessment on grades in community college distance education mathematics courses. *The American Journal of Distance Education, 23*(2), 62.	Article focuses on student assessment and compares proctored (some face-to-face) vs. non-proctored (entirely online assessment). No significant difference was found.
Trautmann, N. (2009). Interactive learning through Web-mediated peer review of student science reports. *Educational Technology Research and Development, 57*(5), 685-704.	Peer-review assessment is addressed in this study and the author found that students valued the experience and receiving reviews was more significant in terms of prompting revisions.
Furnborough, C. & Turman, M. (2009). Adult beginner distance language learner perceptions and use of assignment feedback. *Distance Education, 30*(3), 339-418 DOI:10.1080/01587910903236320.	This study reinforces the importance of assignment feedback.
Liang, J., Tsai, C. (2010). Learning through science writing via online peer assessment in a college biology course. *The Internet and Higher Education, 13* (4), 242-247.	The authors focus on peer assessment as a way to improve writing skills. The authors found that students' writing improved as the online peer assessment activities proceeded.

General Standard 2	
Wang, L. (2010). Integrating communities of practice in e-portfolio assessment: Effects and experiences of mutual assessment in an online course. *The Internet and Higher Education, 13* (4), 267-271.	This article explored the effects and experiences of a mutual assessment framework in an online graduate course.
Wolff, B.G. & Dosdall, M.R. (2010). Weighing the risks of excessive participation in asynchronous online discussions against the benefits of robust participation. *MERLOT Journal of Online Learning and Teaching, 6(*1). Available at http://jolt.merlot.org/vol6no1/wolff_0310.htm	Article focuses on "teaching" issues rather than "design", but of some significance. Study found that participation in discussion forums within an environmental biology course was significant predictor of final exam score and course completion rate. Of interest it that 30 percent of students dropped the course and excluded from the study. It appears that those who did not drop the course that demanded robust discussions did well.
Ifenthaler, D. (2010). Bridging the gap between expert-novice differences: The model-based feedback approach. *Journal of Research on Technology in Education, 42*(2), 103-117.	Study supports importance of "informative feedback". Article includes good overview of automated feedback forms.
Hatziapostolou, T., & Parakakis, I. (2010). Enhancing the impact of formative feedback on student learning through on online feedback system. *Electronic Journal of e-Learning, 8* (2), 111-122, available online at www.ejel.org	Article describes the importance of feedback tool that, once created as a template can be used to provide personalized feedback to individual students. Reason for need for use a tool is recognition in the research that formative feedback to students "can be effective in promoting learning if it is timely, personal, manageable, motivational, and in direct relation with assessment criteria" (p. 111).

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General Standard 5 Thanks to M.D. Roblyer and Linda River for reference contributions during the [QM Interaction Summit](#)	
Grabe, M. & Flannery, K. (2009-2010). A preliminary exploration of on-line study question performance and response certitude as predictors of future examination performance. *Journal of Educational Technology Systems, 38*(4), 457-472.	Study found that students who scored on bottom third of exam did not use the study question materials at the same rate used by students who scored higher.
Mancuso, S. (2008). *A qualitative study of barriers to participation in Web-based environments among learners at the community college level.* (Capella University). *ProQuest Dissertations and Theses, Document ID 304815638.*	This dissertation focuses on barriers to participating in Web-based courses at the community college level. Barriers include the incompatibility with student learning styles and Web-based courses, a lack of understanding of Web-based courses and how they work, the perceived lack of structure of Web-based courses, the quality of Web-based courses, lack of personal motivation, and concerns with technology. Implementing standardized practices that improve the interactions between instructors and students, and standardizing the designs of Web-based courses are recommendations for improved practice. "
Miller, R. (2008). *Communities of practice: The utility of web-based communication tools in assisting new, adult, online learners' transition to formal distance education.* (Unpublished doctoral dissertation). Texas A&M University. Available at http://repository.tamu.edu/bitstream/handle/1969.1/ETD-TAMU-2415/MILLER-DISSERTATION.pdf?sequence=1	This dissertation investigated adult students in their first semester in a doctoral distance program and concluded that the opportunity to "engage socially with their peers should be built into the design of online classes."
Spinks, K. (2007). *Predictors of success in asynchronous learning with a focus on the role of sense of classroom community.* (Walden University). *ProQuest Dissertations and Theses, Document ID 30476919.*	This dissertation looks at student success related to building community in an online program and recommends that designers build in opportunities to create community and academic self-efficacy.
Schutt, M. (2008). *The effects of instructor immediacy in online learning environments.* (University of San Diego and San Diego State University). *ProQuest Dissertations and Theses, Document ID 304705143.*	This study addresses Instructor immediacy and social presence and how these affect students. The study has implications for institutions selecting conferencing tools for online use.
Rothmund, C. (2008). *Correlation between course interactivity and reported levels of student satisfaction in hybrid courses.* (Capella University). *ProQuest Dissertations and Theses, Document ID 30481888.*	The study examined student-student and student-instructor interaction in relation to student satisfaction in four hybrid courses. The results indicate that students are more satisfied if there is instructor participation and that interaction and satisfaction are linked in hybrid courses.

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Rhode, J. (2008). *Interaction equivalency in self-paced online learning environments: An exploration of learner preferences.* (Capella University). *ProQuest Dissertations and Theses, Document ID 304832532.*	This study uses mixed methods to explore interaction in a self-paced online environment and found that informal interaction can be as important as formal. It also explores the use of holistic interactive forms compared to other types of interaction and provides an Interaction Matrix.
Barrett, K. (2008). *An exploration of EFL teachers' and learners' lived experiences in a synchronous online VoIP-enabled cross cultural language learning environment.* (The University of New Mexico). *ProQuest Dissertations and Theses, Document ID 304525732.*	This grounded theory study explored the lived experiences of teachers and learners and examined synchronous VoIP-enabled online cross-cultural language learning. A major finding was that student-student interaction and sharing of lived-experiences strengthened the community of practice.
J.B. Arbaugh, Martha Cleveland-Innes, Sebastian R. Diaz, D. Randy Garrison, Philip Ice, Jennifer C. Richardson, Karen P. Swan, (2008). Developing a community of inquiry instrument: Testing a measure of the Community of Inquiry framework using a multi-institutional sample, *The Internet and Higher Education, 11,* (3-4), 133-136.	This article focuses on the Community of Learning Theory and finds that CoI is a valid framework for constructing effective online teaching environments. The conclusion is that course design and organization and instructor behavior are two parts or factors of teaching presence.
Doering, A., Veletsianos, G. (2008). What lies beyond effectiveness and efficiency? Adventure learning design. *The Internet and Higher Education. 11*(3-4), 137-144.	This journal article evaluates three projects related to adventure learning and focuses on effectiveness, efficiency, engagement, social justice and transformational capability.
Saritas, T. (2008). The construction of knowledge through social interaction via computer-mediated communication. *Quarterly Review of Distance Education, 9*(1), 35-49,106.	This journal article examines social participation and patterns of interaction in asynchronous computer conferences and considers whether or not computer-mediated communication supports the construction of knowledge in a collaborative learning process.
Heiman, T. (2008). The effects of email-messages in a distance learning university on perceived academic and social support, academic satisfaction, and coping. *Quarterly Review of Distance Education, 9*(3), 237-248,347.	This study examined the how email messaged affected undergraduate student perceived social support, academic satisfaction, academic outcomes and coping modes.
Bing, W., & Ai-Ping, T. (2008). The influence of national culture towards learners' interaction in the online learning environment: A Comparative Analysis of Shanghai TV University (China) and Wawasan Open University (Malaysia) *Quarterly Review of Distance Education, 9*(3), 327-339,348.	This journal article describes a comparative analysis of learner interaction and coded interaction based on social, procedural, expository, explanatory and cognitive dimensions. They included coordinator to groups, tutor to group, tutor to student, student to group, student to coordinator, student to tutor and student to student interactions. The study also considers the influence of culture and recommends strategies to enhance the quality of interaction.

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Drouin, M. (2008). The relationship between students' perceived sense of community and satisfaction, achievement, and retention in an online course. *Quarterly Review of Distance Education, 9*(3), 267-284.	The study examined student sense of community (SOC) and considered student -student and student-teacher interactions. The author found that SOC was related to the students' sense of satisfaction with the course but that it did not correlate with course grade or retention. It also showed that students had varying levels of desire for SOC.
Keller, J. M. (2008). First principles of motivation to learn and e3-learning. *Distance Education 29*(2), 175-185 DOI: 10.1080/01587910802154970	In reviewing the literature on motivation to learn, the author lists five principles: Motivation to learn is promoted when a learner's curiosity is aroused due to a perceived gap in current knowledge; when the knowledge to be learned is perceived to be meaningfully related to a learner's goals; when learners believe they can succeed in mastering the learning task; when learners anticipate and experience satisfying outcomes to a learning task; and when learners employ volitional (self-regulatory) strategies to protect their intentions" (177-178).
Battalio, J. (2009). Success in distance education: Do learning styles and multiple formats matter? *The American Journal of Distance Education, 23*(2), 71.	Article focuses on student learning styles and examines how collaborative and self-directed versions of an online course affect learning/grade outcomes.
Hill, J., Song, L., & West, R. (2009). Social learning theory and Web-based learning environments: A Review of Research and Discussion of Implications. *The American Journal of Distance Education, 23*(2), 88.	Article focuses on social interaction and how it plays a significant role in students' sense of learning in a web based learning environment.
Bubb, T. (2009). *Analyzing interactive activity communication in online courses to determine the evolution of online communities of learning.* (University of Houston). *ProQuest Dissertations and Theses, Document ID 304894822.*	This dissertation is a qualitative study that looks at factors that contribute to creating a community of learners in an online environment. It includes recommendations on creating and maintaining such a community.
Jain, P. (2009). *Building learning communities: Facilitating interaction in computer mediated online courses.* (University of Wyoming). *ProQuest Dissertations and Theses, Document ID 304453498.*	Focus is on interaction and communication between online learners and concludes that group size, grade weight, use of chat, and differences in discipline are all predictors of engagement.
Schadewitz, N. (2009). *Design patterns for cross-cultural computer-supported collaboration.* (Hong Kong Polytechnic University: Hong Kong). *ProQuest Dissertations and Theses, Document ID 304814797.*	This dissertation is a three year ethnographic study that addresses cross-cultural computer-supported collaborative learning and includes topics of intercultural communication and intercultural design education. Discovery of similarities and differences across cultural settings and eleven patterns for incultural computer-supported collaboration in Hong Kong/Korean design-learning teams are outlined.

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Hartwig, S. (2009). *Constructivist course design and educational effectiveness in online distance education.* (Regent University). *ProQuest Dissertations and Theses, Document ID 305137024.*	This dissertation examines the constructivist design of courses and its educational effectiveness. The study concludes that learning is inherently social and that there was a relationship between the design and the COLLES and affective aspects of learning but that there was no cognitive learning relationship.
O'Hara, L. (2009). *An investigation of the formation of learning community in Web-based distance education.* (University of Pittsburgh). *ProQuest Dissertations and Theses, Document ID 250790680.*	Interaction in an online course was studied and a qualitative design was used to consider community and strategies in design that will create more intuitive and visually reinforcing elements that encourage interaction types. A series of indicators that signify the development of community in the online classroom are included.
Roehrig, K. (2009). *Infusing theology and technology: Instructional strategies that build community in online theological courses.* (Capella University). *ProQuest Dissertations and Theses, Document ID 304831087.*	This dissertation identifies effective instructional strategies for building online communities in theological school distance education settings, some of which are problem based learning based.
Bonk, C., Lee, M., Kim, N., Lin, M. (2009). The tensions of transformation in three cross-institutional wikibook projects. *The Internet and Higher Education, 12*(3-4), 126-135.	This journal article studied the use of wikibooks and knowledge transformation and examines five key themes: instructional issues, collaboration issues, technology issues, constructivism and sense of community issues, and wikibook issues.
Ke, F., Xie, K. (2009). Toward deep learning for adult students in online courses. *The Internet and Higher Education, 12* (3-4), 152-155.	This article looks at learner engagement and adult students' self-perceived and observable learning performance. Findings indicate that an integrated course model promotes learning satisfaction, content and support reinforces knowledge-constructive online interactions and that close-ended discussions are not advantageous.
Chen, F., Wang, T. (2009). Social conversation and effective discussion in online group learning. *Educational Technology Research and Development, 57* (5), 587-612.	This journal article examines social talk of high school students in online course forums. The author explores how "soft-talk" and social interaction that takes place in a discussion forum relates to the overall learning in a group discussion and collaboration and whether or not these exchanges are relevant.
Hong, H., Sullivan, F. (2009). Towards an idea-centered, principle-based design approach to support learning as knowledge creation. *Educational Technology Research and Development, 57* (5), 613-627.	The authors focus on viewing learning as knowledge creation and whether design should support collaborative creative learning. The authors argue that there is a need to move away from efficiency-oriented design to innovation-oriented design.
Pate, A., Smaldino, S., Mayall, H., & Luetkehans, L. (2009). Questioning the necessity of nonacademic social discussion forums within online courses. *Quarterly Review of Distance Education, 10*(1), 1-8, 90.	This article examines a course in which social interaction was built into the course and syllabus. The course was built so that "learning was not separated from the social context."

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Weidman, R., & Bishop, M. (2009). Using the jigsaw model to facilitate cooperative learning in an online course. *Quarterly Review of Distance Education, 10*(1), 51-64, 89,91.	This article describes a study that examined a course that used the jigsaw model (which incorporates student-student interaction/teaching. The authors found mixed results in regards to learning activities and ultimate success.
Tseng, H., Wang, C., Ku, H., & Sun, L. (2009). Key factors in online collaboration and their relationship to teamwork satisfaction. *Quarterly Review of Distance Education, 10*(2), 195-206,251-252.	This study examined collaborative group work and focused on student experiences. It examined collaboration factors and teamwork satisfaction of 46 graduate students and found that "trust among teammates" and "organization practices" were effective factors for student satisfaction. The article provides recommendations for instructors to improve collaborative experiences.
Stein, D., Wanstreet, C., & Calvin, J. (2009). How a novice adult online learner experiences transactional distance. *Quarterly Review of Distance Education, 10*(3), 305-311,319-320.	This article focuses on a novice online adult learner and uses transactional distance as a framework for analyzing interviews. The article considers the role of dialogue and "creating a voice for learning, connecting in a space for learning, and creating a time for learning." The authors conclude that instructors pay a "critical role in helping novice learners develop identities..."
Morgan, K., Cameron, B., & Williams, K. (2009). Student perceptions of social task development in online group project work. *Quarterly Review of Distance Education, 10*(3), 285-294,320.	Student perceptions of social task development were analyzed. The authors conclude that instructors in online classes can provide "guidelines and tasks to support behaviors that enhance social task development."
Slagter van Tryon, P. & Mishop, M.J. (2009). Theoretical foundations for enhancing social connectedness in online learning environments. *Distance Education, 30(*3), 291-315. DOI: 10.1080/01587910903236312.	Authors present a theoretical design framework for social developed from their reading of the literature: Key tasks include *Learners status assessments *Learners development of norms, & *Role differentiation. Those are cross referenced with designing to increase interaction, comprehensive technical support, and persistent follow-up (p. 305).
Baran, E. & Correia, A.P. (2009). Student-led facilitation strategies in online discussions. *Distance Education, 30*(3), 339-361. DOI: 10.1080/01587910903236510.	Authors provide tips from 3 case studies for using student-led discussion facilitation. Design issues include "setting up the landscape" as well as giving them some facilitation strategies as sample guides.

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Crippen, K. J. Biesinger, K.D., Muis, K.R., & Orgill, M. (2009). The role of goal orientation and self-efficacy in learning from web-based worked examples. *Journal of Interactive Learning Research 20*(4), 385-403.	Article worth a complete read for designers of introductory natural sciences - this study done with such students in first semester introductory inorganic chemistry course for science majors. Questions involved relationship among achievement motivation, self-efficiency, and self-regulation learning and if designing "working example" [see http://en.wikipedia.org/wiki/Worked-example_effect for quick description; fuller one included in article] is a good strategy for both mastery- and performance-approach orientations. Authors report, "These results suggest that the availability of worked examples as an instructional design consideration affords students with [both goal-orientations - mastery- and performance-] a strategy for improving achievement and increasing self-efficacy" (p.398).
Novais, M., Ramos, M., Nappo, S., & Sigule, D. (2010). Study of teacher practices in health sciences in Brazil. *The American Journal of Distance Education, 24*(1), 40.	This study found that student-teacher interaction satisfaction improved and interactivity with content also increased. Study took place in Brazil in a Health Services program.
Griffiths, M. (2010). *Improving the asynchronous video learning model.* (Brigham Young University). *ProQuest Dissertations and Theses, Document ID 305188203.*	Study looks at the prototype design theory titled the Asynchronous Video Learning Model (AVLM) and finds that there are both positive and negative experiences and that student-instructor relationship impacts the overall student learning to some degree.
Donahoe, T.(2010). *Language anxiety in the online environment: An exploratory study of a secondary online Spanish class.* (Pepperdine University). *ProQuest Dissertations and Theses, Document ID 648972788.*	Study investigates foreign language learning from a qualitative perspective and one of the findings is that course design matters in building a positive experience and lowering anxiety. Teacher empathy fosters learning is another finding.
Shearer, R. (2010). *Transactional distance and dialogue: An exploratory study to refine the theoretical construct of dialogue in online learning.* (The Pennsylvania State University). *ProQuest Dissertations and Theses, Document ID 304983940.*	This study focuses on Moore's theory of Transactional Distance and specifically addresses the role of dialogue in student knowledge building in distance education. A proposed classification scheme is included.
Laves, E. (2010). *The impact of teaching presence in intensive online courses on perceived learning and sense of community: A mixed methods study.* (The University of Nebraska – Lincoln). *ProQuest Dissertations and Theses, Document ID 220163044.*	This study looks at the connection between teaching presence and perceived learning in Garrison, Anderson and Archer's (2000) Community of Inquiry Model of Online Learning and found that there was a positive connection between perceived learning when teaching presence (which includes a course design element) was higher. The study also includes a model for measurement.

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Rockinson-Szapkiw, A. (2010). *The impact of asynchronous and synchronous instruction and discussion on cognitive presence, social presence, teaching presence, and learning.* (Regent University). *ProQuest Dissertations and Theses, Document ID 250918726.*	This dissertation uses the Community of Inquiry Framework and studies social presence, cognitive presence, teacher presence and perceived learning between two groups of students who used synchronous and asynchronous and a combination, and found that there was no significant difference in these areas.
Okonta, O. (2010). *Effects of online interaction via computer-mediated communication (CMC) tools on an e-mathematics learning outcome.* (Capella University). *ProQuest Dissertations and Theses, Document ID 305243204.*	This study focused on learner-learner, learner-instructor, learner-content and learner-interface in an e-mathematics course design. It found no significant difference between students who worked alone (learner-instructor and learner-content) versus those who collaborated.
Abdous, M., Yen, C. (2010). A predictive study of learner satisfaction and outcomes in face-to-face, satellite broadcast, and live video-streaming learning environments. The Internet and Higher Education, 13 (4), 248-257.	This article focuses on self-perceived learner-teacher interaction, self-rated computer skill, prior distance learning experience, and learners' satisfaction and outcomes. The author's findings indicate that learner-teacher interaction is important in learning outcomes and satisfaction.
Schroeder, A., Minocha, S., & Schneidert, C. (2010). The strengths, weaknesses, opportunities and threats of using social software in higher and further education teaching and learning. *Journal of Computer Assisted Learning, 26*, 159-174. doi: 10.1111j.1365-2729.2010.00347x.	Article excellent resource on topic of use of social software in education - provides examples of studies within article. This study drew data from 20 different UK-based higher and further education institutions "to identify the diverse experiences and concerns of students and educators" (p. 159). A SWOT format was used to present results: Strengths including (1) building of social relationships (2) improved learning (3) enhanced communication between students and educators. Weaknesses included (!) workload issues (2) perceived limitations in the quality of interaction (3) uncertainty about ownership and assessment issues (pgs. 164-166). These softwares were used at an institutional, as well as course level.
Bush, R., Castelli, P., Lowry, P., & Cole, M. (2010). The importance of teaching presence in online and hybrid classrooms. Proceedings from Academy of Educational Leadership, New Orleans, April 14-16, 2010.	Example of study supporting importance of teaching presence as suggested by the Community of Inquiry model/CoI (see http://communitiesofinquiry.com/model). Note: CoI model's "teaching presence" includes designing, facilitation, and direction.
Kuo, Y. (2011). *Interaction, Internet self-efficacy, and self-regulated learning as predictors of student satisfaction in distance education courses.* (Utah State University). *ProQuest Dissertations and Theses, Document ID 755041958.*	Student satisfaction was studied regarding types of interaction, internet self-efficacy, and self-regulated learning. "Results indicate learner-instructor interaction and learner-content interaction are significant predictors of student satisfaction when class-level variables are excluded. Of the class-level predictors, only the program from which the course was offered moderates the effect of learner-content interaction on student satisfaction. There is no direct impact of class-level predictors on student satisfaction. Learner-content interaction is the sole significant predictor when class-level predictors are added to the model."

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General Standard 5

Darabi, A., Assastia, M.C., Nelson, D.W., Cornille, T., & Liang, X. (2010). Cognitive presence in asynchronous online learning: a comparison of four discussion strategies. *Journal of Computer Assisted Learning,* doi: 10.1111/j.1365-2729.2010.00392.x.	This study looked at four scenario-based online discussion strategies - structured, scaffolded, debate, and role play - in relationship to learners' cognitive presence and outcomes. They found that different strategies were effective, dependent on the goal/objective of the learning activity.
Dixson, M. D. (2010). Creating effective student engagement in online courses: What do students find engaging? *Journal of the Scholarship of Teaching and Learning, 10*(2), 1-13. Available at https://www.iupui.edu/~josotl/archive/vol_10/no_2/v10n2dixson.pdf	Article is case presentation, not within case study research. Supports recognition that "instructors also need to provide multiple ways of interacting with students themselves to create their own social presence." (p. 8)
Moallem, M. (2007). Accommodating individual differences in the design of online learning environments: A comparative study. *Journal of Research on Technology in Education, 40(*2), 217-245. Available http://www.fp.ucalgary.ca/maclachlan/EDER_679.06_Fall_2009/Individual_Differences.pdf	Concluded: "it seems that in online learning environments where social interaction, collaboration and problem solving are highly emphasized, it is likely that students' perception of their positive learning experience influence their motivation and willingness to adjust their preferred learning styles" (p. 238).
Boyle, F., Kwon, J. Ross, C., & Simpson, O. (2010). Mentoring projects in the United Kingdom, Korea, and New Zealand reported a 20% increase in retention rates when students mentor other students. *Open Learning, 25*(2), 115-130.	Mentoring projects in the United Kingdom, Korea, and New Zealand reported a 20% increase in retention rates when students mentor other students.
Boston, W., Diaz, S. R., Gibson, A., Ice, P., Richardson, J., & Swan, K. (2009). *Journal of Asynchronous Learning Networks, 13*(3), 67-83.	This study looked at the impact of social interaction in online learning communities on retention rates. Using analysis of 28,000 records and survey data, it was concluded there is a significant impact of social and cognitive presence on retention. "… students who positively perceive online learning environments, which is potentially increased by their perception that they are part of a larger (social) learning community, are more likely to have increased retention."
Chu, R. J., & Chu, A. Z. (2010). *Computers & Education, 55*(1), 145-154.	This study focused on peer support, individual persistence, and overall group achievements with students over 45 years old. Results indicated that the individual's Internet self-efficacy is determined by peer support and learner's persistence.
Gorsky, P., Caspi, A., Antonovsky, A., Blau, I., & Mansur, A. (2010). *International Review of Research in Open and Distance Learning, 11*(22). Available http://www.irrodl.org/index.php/irrodl/article/view/820/1558	The focus in this study was on the relationship between disciplines (science versus humanities) and engagement in online courses. Results indicated a higher ratio of cognitive, teaching, and social presence in the science courses in comparison to the humanity courses.

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General Standard 5 Thanks to M.D. Roblyer and Linda River for reference contributions during the [QM Interaction Summit](#)	
Grandzol, C. J., & Grandzol, J. R. (2010). Interaction in online courses: More is not always better. *Online Journal of Distance Learning Administration, 13*(2). Available http://www.westga.edu/~distance/ojdla/summer132/Grandzol_Grandzol132.html	Using a sample of 359 students in online undergraduate business courses, aggregate data were examined to determine effects of course enrollment numbers and student and faculty time spent in interaction on course completion rates. Findings indicated that increased levels of learner-learner interaction, as measured by time spent, decreased course completion rates. Other results: student participation was higher in larger courses, while faculty participation was lower. No significant relationships were found between faculty participation and course completion rates.
Ke, F. (2010). Examining online teaching, cognitive, and social presence for students. *Computers & Education, 55(*2), 808-820.	Drawing on the Community of Inquiry model (Garrison, Anderson, Archer, 2000), this mixed-methods case study examined the nature and interactions of teaching, cognitive, and social presence created by online instructors and adult students in diverse course contexts. The study results indicated online instructional design and teaching elements that are crucial prerequisites for a successful online higher educational experience for adult students. The study also informed e-learning designers on relationships among online teaching, cognitive, and social presence.
Meeuwisse, M., Severiens, S. E., & Born, M. P. (2010). Learning environment interaction, sense of belonging and study success in ethnically diverse student groups. *Research in Higher Education, 51(*6), 526-545. [+STD 8]	This study used structural equation modeling to examine the relationship among factors of motivation, interaction, feeling of belonging, and course success. The focus was on comparing models for 523 ethnic minority and ethnic majority students in four universities. Results show that minority students prefer a more formal relationship with instructors and peers, but this sense of belonging in the course did not translate into higher course success. Ethnic majority students, however, preferred informal relationships with peers, and this did translate into course success
Richardson, J. C., & Swan, K. (2003). *Journal of Asynchronous Learning Networks, 7(*1), 68-88.	This study used a correlational design to explore the role of social presence in online learning environments and its relationship to students' perceptions of learning and satisfaction with the instructor. The 97 participants for this study were students who completed online learning courses in the spring of 2000 and completed the end of semester course. Students with high overall perceptions of social presence also scored high in terms of perceived learning and perceived satisfaction with the instructor. Students' perceptions of social presence overall contributed significantly to the predictor equation for students' perceived learning overall. Gender accounted for a low amount of the variability of students' overall perception of social presence, while age and number of college credits earned did not account for any of the variability.

General Standard 5 Thanks to M.D. Roblyer and Linda River for reference contributions during the QM Interaction Summit	
Swan, K. (2002). Building communities in online courses: the importance of interaction. *Education, Communication and Information, 2(*1), 23-49.	This study focused on the factors in course design that support social development through online discussions. Analysis of student perceptions found that clear and concise course design, interaction with instructors, and active discussions with peers were significant factors in building learning communities. Findings further support the importance of creating opportunities for interaction to support online teaching and learning.
Swan, K., & Shih, L. F. (2005). On the nature and development of social presence in online course discussion. *Journal of Asynchronous Learning Networks, 9(*3), 115-136.	This study explored social presence and how it develops during discussions in online courses. Quantitative analyses of survey results from students enrolled in four online graduate courses were examined, along with qualitative comparisons of students with the highest and lowest perceptions of social presence. Quantitative results revealed significant correlations between perceived social presence and satisfaction with online discussions. Perceived presence of instructors may be a more influential factor in determining student satisfaction than the perceived presence of peers. Correlations with other course and learner characteristics suggest that course design may also significantly affect the development of social presence. Qualitative findings supported quantitative results.
Baturay, M. H., & Bay, O. F. (2010). The effects of problem-based learning on the classroom community perceptions and achievement of web-based education students. *Computers & Education, 55(*1), 43-52.	This study investigated the impact of problem-based learning on perceptions and achievement of students. Participants were university students in a distance education program in Ankara, Turkey. Students reported that problem-based projects encouraged them to be more engaged with peers and to achieve higher posttest scores. However, no significant differences were found between study and control groups for midterm and final grades.
Cameron, B. A., Morgan, K., Williams, K. C., & Kostelecky, K. L. (2009). Group projects: student perceptions of the relationship between social tasks and the sense of community in online group work. American Journal of Distance Education, 23(1), 20-33.	The relationship between specific social tasks and perceptions of the students were explored. Researchers wanted to determine the sense of community that could be established during online group work. Results with 125 students in 6 different classes indicated few significant relationships between each of the five social tasks examined and student perceptions of a sense of community during online group work. Although the tasks were social in nature, students were more interested in getting a grade than in enhancing learning through group collaboration.

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General Standard 5 Thanks to M.D. Roblyer and Linda River for reference contributions during the QM Interaction Summit	
Harsh, O.K. & Sohail, M.S. (2002). Role of delivery, course design and teacher-student interaction: observations of adult education and traditional on-campus education. *The International Review of Research in Open and Distance Learning, 3(*2). Retrieved from http://www.irrodl.org/index.php/irrodl/article/view/92/171	In an adult distance education program in Malaysia, 15 study participants were divided into three groups: Group 1 was an on-campus class; Group 2 was distance students aged 20-24; and Group 3 were distance students aged 35-45 years old. All groups were assigned to complete a web page project. On the final project, Group 1 did significantly better than the distance groups. Group 2 grades were 15% lower than Group 1 and Group 3's grades were 18% lower than group 1.
Pragnell, M. V., Roselli, T., & Rossano, V. (2002). An enhanced genetic approach to composing cooperative learning groups for multiple grouping criteria. *Educational Technology & Society, 9(*2), 119-132.	Researchers implemented a web-based environment with an experimental group and compared the impact on group problem-solving to a control group using traditional classroom cooperative learning. Each group had to solve geometry problems by communicating among themselves, agreeing on the problem solving strategy to be used, solving the problems, and communicating the answer to the instructor. Two experiments assessed the amount of learning; the quantity and quality of the interaction promoted by the system; and how factors such as gender, background knowledge and role affect communication. The results indicated that groups were not significantly different in achievement, but in the experimental group, higher learning gains were reported for the less able students. High interaction was also reported for all ability levels in the experimental group.
Uribe, D., Klein, J. D., & Sullivan, H. (2003). Educational Technology Research and Development, 51(1), 5-19.	Participants were taught a computer-mediated process for solving problems using a four-step method. Two groups were used: those who worked through a problem alone and those that were grouped in dyads. The computer-mediated dyads were significantly more successful than those who worked alone. The study also indicated that those that worked collaboratively spent significantly more time in solving the problem scenario. All participants had a positive attitude regarding the problem solving process and Internet-based instruction.
Dixson, M. D. (2010). Creating effective student engagement in online courses: what do students find engaging? *Journal of the Scholarship of Teaching and Learning, 10(*2), 1-13.	A scale was created to measure online student engagement, and 186 students from six campuses and 38 courses completed surveys on what they found most engaging. Students reported that some activities were highly engaging, including: application activities (having to apply the concepts to case studies or problem solving); discussion forums about the concepts, labs, and group projects; research papers; and current events assignments in online classes. Highly-engaged students were twice as likely to report using discussion forums to interact with other students and were the only students who reported web projects and webpages as a means of interaction.

General Standard 5 Thanks to M.D. Roblyer and Linda River for reference contributions during the QM Interaction Summit	
Hwang, A., & Francesco, A. M. (2010). The influence of individualism-Collectivism and power distance on use of feedback channels and consequences for learning. *Academy of Management Learning & Education, 9(*2), 243-257.	The impact of either face-to-face or electronic feedback on student performance in a university course was examined. The number of online forums in which a student participated was positively related to learning performance (measured by multiple choice tests). In contrast, average number of postings per forum was negatively related to learning performance. Contrary to expectations, no direct relationship was found between use of any of three face-to-face feedback channels and learning gains.
Rovai, A. P., & Barnum, K. T. (2003). On-line course effectiveness: an analysis of student interactions and perceptions of learning. *Journal of Distance Education, 18*(1), 57-73.	Responses of 328 students in 19 online graduate courses were analyzed to determine how much they felt they learned in the online course as opposed to a traditional course. Results indicated that students felt they learned more in traditional courses. Only active interaction, operationalized by the number of messages posted by students per week, was a significant predictor of perceived learning.
Sher, A. (2009). Assessing the relationship of student-instructor and student-student interaction to student learning and satisfaction in web-based online learning environment. *Journal of Interactive Online Learning, 8*(2). Retrieved from www.ncolr.org/jiol/issues/PDF/8.2.1.pdf	This study shows the importance of interaction to student learning within Web-based online learning programs. The population of this study was students enrolled in multiple academic disciplines at a private university in the Washington, DC Metropolitan area. A Web-based research instrument was designed to assess students' characteristics, their perceptions of learning, satisfaction, student-to-student interactions and student-to-instructor interactions. Both student-instructor interaction and student-student interaction were found to be significant contributors to student learning and satisfaction.
Taylor, P., & Maor, D. (2000). Assessing the efficacy of online teaching with the constructivist on-line learning environment survey. *Teaching and Learning Forum.* Retrieved from http://otl.curtin.edu.au/tlf/tlf2000/taylor.html	Authors developed the Constructivist On-Line Learning Environment Survey (COLLES), an electronic questionnaire that enables them to monitor each student's preferred online learning environment and compare it with her/his actual experiences. The results of the questionnaire indicated that students prefer: to be engaged often in thinking critically about their own ideas and other students' ideas, and about how they are learning; that their tutors almost always encourage, praise and value their online participation and be empathic and responsive to them; that their online learning almost always to be interesting and directly related to their professional practice; and that student-student interaction should occur less often.

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General Standard 5 Thanks to M.D. Roblyer and Linda River for reference contributions during the QM Interaction Summit	
Anderson, T. (2004). *Getting the mix right again: an updated and theoretical rationale for interaction.* International Review of Research in Open and Distance Learning, 4(2). Retrieved from http://www.irrodl.org/index.php/irrodl/article/view/149/	The author urges researchers to go beyond the obvious conclusions from data and to make inferences from the phenomena they encounter. He stresses the importance of interaction between instructor-student and student-student, but also student-content interaction. Anderson provides examples of various types and mixes of interaction as well as a model of online learning. He encourages all researchers and instructors to create cost effective and accessible avenues to reach the demand for globalization of education.
Roblyer, M. D., & Wiencke, W. (2004). Exploring the interaction equation: validating a rubric to assess and encourage interaction in distance courses. *The Journal of Asynchronous Learning Networks, 8(4)*, 24-37. http://sloanconsortium.org/sites/default/files/v8n4_roblyer_1.pdf	The authors present validation evidence for a rubric that instructors, students, and others can use to measure the interactive qualities of online courses in terms of high, medium, and low interaction. Five elements are included in the rubric: (1) social/rapport-building designs, (2) instructional designs for interaction, (3) interactivity of technology resources, (4) evidence of learner engagements, and (5) evidence of instructor engagement.
Swan, K., Garrison, D. R. & Richardson, J. C. (2009). A constructivist approach to online learning: the community of inquiry framework. *In Payne, C. R. (Ed.) Information technology and constructivism in higher education: Progressive Learning Frameworks. Hershey, PA.*	The authors present a framework of online learning which views learning from the perspective of social, cognitive, and teaching presence. Based on John Dewey's theory of education, this framework is discussed and the finding and issues reviewed. The possibility of developing a survey measure to address the three presences is discussed. [Note: See Community of Inquiry framework (http://communitiesofinquiry.com/) for significance of design within the CoI model (as part of teaching presence. Survey at http://communitiesofinquiry.com/methodology).
Olesofa, L.A., Richardson, J.C., Weasenforth, D., & Meloni, C. (2011). Using asynchronous instructional audio feedback in online environments: a mixed methods study. *MERLOT Journal of Online Learning and Teaching, 7(1)* http://jolt.merlot.org/vol7no1/olesova_0311.pdf	This study supports earlier finding by Ice, et al that "students perceive audio feedback as personal and enjoyable, and it helps increase their interest and feel the instructor's care" (p. 40).

General Standard 5 Thanks to M.D. Roblyer and Linda River for reference contributions during the QM Interaction Summit	
Means, B., Toyama, Y., Murphy, R., Bakia, M., & Jones, K. (2010). Evidence-Based Practices in Online Learning: A Meta-Analysis and Review of Online Learning Studies, U.S. Department of Education, Office of Planning, Evaluation, and Policy Development, Washington, D.C., 2010.	"The research does not support the use of some frequently recommended online learning practices. Inclusion of more media in an online application does not appear to enhance learning. The practice of providing online quizzes does not seem to be more effective than other tactics such as assigning homework"…"Studies indicate that manipulations that trigger learner activity or learner reflection and self-monitoring of understanding are effective when students pursue online learning as individuals."…"Providing guidance for learning for groups of students appears less successful than does using such mechanisms with individual learners" (p. xvi).

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Standard 6

Bernard, L., Paton, V., & Lan, W. (2008). Online self-regulatory learning behaviors as a mediator in the relationship between online course perceptions with achievement. *International Review of Research in Open and Distance Learning, 9*(2).	Survey study results from 204 self-selected, unduplicated students indicate "that online self-regulatory learning behaviors, though not strongly associated with academic achievement in and of themselves, do mediate the positive relationship between student perceptions of online course communication and collaboration with academic achievement" (p. 1).
Luyben, P.D. & Warden, K.B. (2008). Comparative effects of video-plus-text versus text-only instructional formats on acquisition and generalization of concept learning to real life situations. *Journal of Educational Technology Systems 37*(2), 159-174.	Author concluded "results showed that both text and video tutorials produced acquisition of the concepts" (p. 159).
Brown, A., Brown, C., Fine, B., Lutherach, K., Sugar, W., & Vinciguerra, D.C. (2008). Instructional uses of podcasting in online learning environments: a comparative inquiry study. *Journal of Educational Technology Systems 37*(4), 351-371.	Results of year-long study of 11 faculty members indicated podcasting useful in facilitating lectures, demonstrations, elaboration/clarification, feedback, interviewing, instructions/assignment, and social presence" (p. 257).
MacQueen, H., & Thomas, J.(2009). Teaching biology at a distance: Pleasures, pitfalls, and possibilities. *The American Journal of Distance Education, 23*(3), 139.	This article discusses biology courses at the Open University UK and how the philosophy of using technologies that make pedagogical sense has proven to be a successful strategy since the founding of the University in 1969. The article provides an overview of challenges and lessons learned in carrying out this strategy.
Eckert, B., Gröber, S., & Jodl, H. (2009). Distance education in physics via the Internet. *The American Journal of Distance Education, 23*(3), 125.	Article focuses on effective use of and choices of technology in distance education physics courses, including hardware, software and remotely controlled laboratories (RCLs).
McBrien, J. L. & Jones, P. (2009). Virtual spaces: employing a synchronous online classroom to facilitate student engagement in online learning. *International Review of Research in Open and Distance Learning, 10(*3) , 1-17	Authors found that confusion by too many technology options in a virtual classroom and technical issues were frustrating to students in blended learning courses and often had negative impact on their involvement.
Picciano, A. G. (2009). Blending with purpose: the multimodal model. *Journal of Asynchronous Learning Networks, 13*(1), 7-18.	The author, as a well-known expert in online/blended learning provides an excellent informational piece of blending with purpose. He presents a "Blending with Purpose" model with the underlying assumption that instructors must carefully consider their objectives and understand how to apply the technologies and approaches that will work best for them" (14). The model includes on content; social/emotional; dialectic/questioning; synthesis/evaluation; collaboration/student generated content; and reflection

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Wise, A.F., Padmanabhan, P., & Duffy, T. M. (2009). Connecting online learners with diverse local practices: the design of effective common reference points for conversation. *Distance Education 30* (3), 371-338 DOI: 10.1080/01587910903236320.	This "initial investigation with a relatively small sample size does provide some items of interest for designers for setting up discussion activities. The authors found "no benefits of using video instead of a theoretical [text] description [of the point of reference]. They suggested "designers should focus their energies on carefully crafting the content of text-based reference points instead of engaging in the multitude of issues related to crating and deploying video" (p. 334-335.)
Lurnkes, J. H. (2009). Survey of three different methods of delivering engineering content in lectures. *Journal of Educational Technology Systems 38(*3), 349-366.	Study from classroom format, but involved delivery of engineering content lecture via PowerPoint slide/handouts, traditional chalkboard lectures w/o handouts, and PowerPoints w/o handouts. PowerPoints provided via wireless connection. 51 third semester engineering students felt PowerPoint w/o handouts least effective, while lecture delivered via PC tablet PowerPoint w handouts the most.
Hawkes, M. & Hategekimana, C. (2009). Impacts of mobile computing on student learning in the university: a comparison of course assessment data. *Journal of Educational Technology Systems 38(*1), 6-74.	Authors found no "performance dip" ("a point at which the preoccupation with an innovation or a new technology negatively affects production performance") (p. 70) when comparing use of Tablet PCs on student performance in course assessments.
Matthew, K. I., Felvegi, E., Callaway, R. A. (2009). Wiki as a collaborative learning tool in a language arts methods class. *Journal of Research on Technology in Education, 42*(1), 51-72.	Study shows use of wiki can support collaborative learning (when designed into a course well - alignment).
Foulger, T.S., Ewbank, A.D., Kay, A., Popp, S.O., & Carter, H.L. (2009). Moral spaces in MySpace: Preservice teachers' perspectives about ethical issues in social networking. *Journal of Research on Technology in Education, 42*(1), 1-28.	Study notes ethical issues of using social networking software - "issues of privacy and teacher conduct are not yet defined in online worlds" (p.1).
Fox, K. (2010). *Investigating the impact of multimedia design principles on learning in an online context.* (Capella University). *ProQuest Dissertations and Theses, Document ID 305243747.*	This dissertation used a quantitative and quasi-experimental design approach and found that there was no significant difference in learning results between a text based and multimedia design in an online course.
Kabilan, M., Ahmad, N., Abidin, M. (2010). Facebook: An online environment for learning of English in institutions of higher education? *The Internet and Higher Education, 13* (4), 179-187.	This journal article explores the use of Facebook as a way to meet course objectives in the learning of English. 300 undergrad students were surveyed and results showed that overall students believed that Facebook would be useful in learning English. The author suggests that pre-determined learning objectives and outcomes need to be considered if integrating Facebook.

Standard 6

Arnold, N., Paulus, T. (2010). Using a social networking site for experiential learning: Appropriating, lurking, modeling and community building, 13 (4), 188-196.	This study explored the intended and unintended uses of Web 2.0 technology (Ning) in a blended course. The use of blogs and discussion forums was useful for reflection on self and others and an unintended result was community building and vicarious interaction (lurking).
Ausgustsson, G. (2010). Web 2.0, pedagogical support for reflexive and emotional social interaction among Swedish students. The Internet and Higher Education, 13 (4), 197-205.	Results of this journal article show that the use of Web 2.0 tools can be used as a supplement to a course and are useful in student reflection, integrating students into work groups, and developing students' identification and awareness in relation to self, task and others.
Halic, O., Lee, D., Paulus, T., & Spence, M. (2010). To blog or not to blog: Student perceptions of blog effectiveness for learning in a college-level course. The Internet and Higher Education, 13 (4), 206-213.	This study explored the use of blogs for discussion and reflection and student perceptions of enhanced learning in a face to face class (included here for information as might be related to online experience). The author found that the use of blogs for reflection was perceived by students to enhance their learning and to think about the course outside of the classroom but that less students perceived value in peer comments. The authors discuss the implications of integrating blogs into undergraduate classrooms.
Meyer, K. (2010). A comparison of Web 2.0 tools in a doctoral course. The Internet and Higher Education, 13 (4), 226-232.	The study examined the use of wikis, blogs and online discussions. Students evaluated the tools in conjunction with the course content/objective. Bloom's taxonomy was used.
Carmichael P., Burchmore, H. (2010). Social software and academic practice: Postgraduate students as co-designers of Web 2.0 tools. The Internet and Higher Education, 13 (4), 233-241.	This article focuses on the use and development of Web 2.0 tools as collaborative and transformative forces in courses. The author notes the need for flexible course design and adaptable frameworks if Web 2.0 tools are to be successfully integrated.
Gee, J.P. (2010). *Video games: what they can teach us about audience engagement.* Nieman Reports (2010, summer). Vol 64 (2), 51.	Abstract (Summary) Gee examines what video games can teach people about audience engagement. Video games are not content-driven media though they do have content. They are driven by choices and problem solving. Content is there to motivate player choices about how to solve problems. What makes a game good is not content but the problems players solve and how they do so. If content contributes to this effort in ways that motivate, then it's good to have. Otherwise it is detrimental to the game or, at best, a distraction. Digital media enable journalists to devise games as a platform for sharing news. Doing this, however, requires not only knowing how to use the technology to create effective games but recognizing that the player's ability to absorb the information will likely rely more on what he does than what he reads. [ProQuest]

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Standard 6	
Traxler, J. (2010). Distance education and mobile learning: Catching up, taking stock. *Distance Education, 31*(2), 129-138. DOI: 10.1080/01587919.2010.503362.	In an editorial for a special issue of Distance Education that focused on distance education and mobile learning, Traxler raised the dilemma of needing a stable definition of mobile learning, one that will move from a focus solely on technology. He notes that while "the mobile learning community has demonstrated, though not proved in any sense, across a wide variety of contexts" that it can "enhance, extend and enrich the concept and activity of learning itself, beyond earlier conceptions of learning and take learning to individuals, communities and countries that were previously too remote or distant...for other educational interventions to reach" (131)..He makes reference to some emerging guidelines for practitioners and provided a resource http://www.mobilearn.org/download/results/guidelines.pdf
Sims, R. (2008). Rethinking (e)learning: a manifesto for connected generations. *Distance Education 29(*2), 153-164 DOI:10.1080/01587941802154954	The author sets a discussion of design in a transitioning learner base which will not be as teacher-centered as traditional. In an increasing mobile population he advocates for c3-learning - collaborative, contextual, and connected.
Lee, J. (2010). Online support service quality, online learning acceptance, and student satisfaction. The Internet and Higher Education, 13 (4), 277-283.	This journal article examines the perceptions of Korean and American students regarding student support services and its relationship to online learning acceptance and satisfaction. The study found that there are significant differences in the two groups and also that a perception of quality support is a predictor of satisfaction.
Nichols, M. (2010). Student perceptions of support services and the influence of targeted interventions on retention in distance education. *Distance Education 31*(1), 93-113 DOI: 10.1080/01587911003725048.	Study with first-time students found the absence of student support services was noticed.
General Standard 6	

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Standard 6	
Mandernach, B. J. (2009). Effect of instructor-personalized multimedia in the online classroom. *International Review of Research in Open and Distance Learning, 10*(3). Available at http://www.irrodl.org/index.php/irrodl/article/view/606/1297	Discussion by author of this study indicates the "conflicting evidence" of research on evidence-based outcomes on effectiveness of multimedia in online course. This study reveals that students indicate they were more engaged, but quantitative data indicated no significant differences in their engagement. Suggestions for future research offered.

Standard 7	
Heckner, M., Schworm, S., & Wolff, C. (2009). Combining design patterns and elements of social computing for the design of user centered online help systems. *Journal of Educational Technology Systems 38(*1), 3-20.	Authors suggest that students' reluctance to use help systems have a psychological and implementional dimension. Understanding "instructions given by the system, which usually is not adequately adapted to user's prior knowledge or the vocabulary of a lay person" is a serious drawback (p. 3)

Standard 8	
Sze, S. (2008). The effects of assistive technology on students with disabilities. *Journal of Educational Technology Systems 37(*4), 419-429.	Author conducted a review of assistive technology literature and noted "technological interventions appeared scattered, vague, incomprehensive and non-specific" (p. 419)
Crow, K. L. (2008). Four Types of Disabilities: Their Impact on Online Learning. *TechTrends, 52*(1).	The majority of disabilities can be found in four categories; Visual, Hearing, Motor and Cognitive. These disabilities can be expressed various levels on their continuums. "Section 508 law requires covered entities to provide real-time text captioning for audio, video, and multimedia presentations that are delivered electronically." It is also possible for instructors or designers to provide printed transcripts for any audio being used. Because individuals with motor impairments have problems accessing their computers course designers should limit the use of synchronous chats, games, or things that require high degrees of dexterity. Cognitive impairments/learning disabled learners comprise the largest group of learners with disabilities. Attention needs to be given to minimalizing webpages. Create logical flow in modules. Use text that can be easily read. Avoid flashing or animation.
Sapp, W. (2009). Universal Design: Online Educational Media for Students with Disabilities. *Journal of Visual Impairment & Blindness.*	Online classes need to be designed with all forms of disabilities in mind, not just the blind and the deaf. Success for disabled students is dependent on their individual learning needs being met. Universal design makes online instructional material accessible and understandable for all kinds of students with disabilities.
Barnard-Brak, L., & Sulak, T. (2010). Online versus face-to-face accommodations among college students with disabilities. *The American Journal of Distance Education, 24*(2), 81.	Article focuses on attitudes of students with disabilities in requesting conformance or assistance with distance education courses and results "do indicate that students who report having visible disabilities appear to have more positive attitudes toward requesting accommodations in the online versus face-to-face learning environment compared with students who report having hidden disabilities." The article provides a general discussion of accessibility issues contained in the Accessibility section of the QM rubric and also addresses building disability standards into a course in the initial design versus retrofitting to fit the needs of a diverse and growing population of distance education students.
Bradbard, D., Peters, C., Caneva, Y. (2010). Web accessibility policies at land-grant universities. The Internet and Higher Education, 13(4), 258-266.	The journal article addresses ADA requirements and concludes that there many deficiencies that exist on university web sites. A content analysis of web accessibility policies was carried out.
Bowen, E. (2010). Accessibility for everyone: Quality Matters Standard 8 [2010QM Research Grant]	Primary lesson from the QMS* Accessibility Project was the importance of working collaboratively in learning about accessibility, including students. The approach needs to be an institutional one.

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General Standards 5 & 6	
Roblyer, M.D., McDaniel, M., Webb, M., Herman, J., & Witty J.V. (2010). Findings on Facebook in higher education: A comparison of college faculty and student uses and perceptions of social networking sites. *The Internet and Higher Education, 13*(3), 134-140	Study reports that students are more open to use of Facebook than are teachers. Study was with convenient, self-selected students, not necessarily fully online students.
Uzuner, S (2009). Questions of culture in distance learning: A research review. International Review of Research in Open and Distance Learning, 10(3) http://www.irrodl.org/index.php/irrodl/article/view/690/1273	The article provides a research review of 27 studies which focused on the issue of culture in distance learning. Branch's (1993) definition of culture is offered: "The patterns shaped by ethnicity, religion, socio-economic status, geography, profession, ideology, gender, and lifestyle" (Branch, 1993, 7). Recommendations for practice from the studies include: "To alleviate student anxieties [resulting from strong uncertainty avoidance cultural traditions] , course structure should be transparent with clear expectations for participation, assignments, learning activities, team work, grading, submission dates, and assessment". Creation of a safe place for sharing should be included if active participation in discussion is an expectation. Providing opportunities for students' to establish their "presence" is important. Instructors/designers should consider that "challenging and criticizing others' ideas may not be considered culturally appropriate in some cultural groups and that constructivist-pedagogy might be disengaging for students from cultural perspectives. (11-13). A related resource (Parrish & Linder-VanBerschot's Cultural Dimensions of Learning: Addressing the challenges of multicultural instruction) can be found at http://www.irrodl.org/index.php/irrodl/article/view/809/1497
General Standards 1 & 5	
Yen, C., & Tu, C. (2008). Online social presence: A study of score validity of the computer-mediated communication questionnaire. *Quarterly Review of Distance Education, 9*(3), 297-310,348.	This study looked at social presence and its influence on online interaction. The authors conclude that social presence is multidimensional and "composed of 4 factors as hypothesized in the theoretical framework: social context, online communication, interactivity, and privacy, although revision of some test items was also suggested by the results." The purpose of the study was to "conduct a confirmatory factor analysis of the Computer-Mediated Communication Questionnaire scores."

General Standards 1 & 5	
Hall, A. (2010). Quality Matters Rubric as 'Teaching Presence': Application of Community of Inquiry Framework to analysis of the QM Rubric's effects of student learning. [A 2010 QM research grant – Delgado Community College, New Orleans, LA]	Findings: After QM Rubric Implementation is taught by same instructor, course design and organization: Increased Teacher and Teaching Presences by reducing Direct Management on DB/ "personalizes" Management; Reduces Student "self-management" (i.e. "Group Concerns") on DB, thus, indirectly reducing "Student Social Presence"; had a positive effect on Student Higher-Order Cognitive Presence via higher Teaching Presence (engagement); positively impacted course satisfaction; and higher-order cognitive presence positively affect discussion forum grades

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General Standards 1 & 2	
Cameron, B., Morgan, K., Williams, K., & Kostelecky, K.. (2009). Group projects: Student perceptions of the relationship between social tasks and a sense of community in online group work. *The American Journal of Distance Education, 23*(1), 20.	Article focuses on building a sense of community in distance courses and particularly as related to group work. Excerpt: "Without specific projects and assignments designed to support these social tasks, students appeared to focus more on getting the project done than on the social tasks.
General Standards 1, 2, & 3	
Pittenger, A. & Doering, A. (2010). Influence of motivational design on completion rates in online self-study pharmacy-content courses. *Distance Education 31(*3), 275-293 DOI 10.1080/01587919.2010.513953	When discussing the implications of their study of four online self-study pharmacy-content courses, they noted motivational factors that impacted high completion rates being "weekly emails" which connected with the learner and suggested timelines to the learner for assignments. Learners also noted "high-quality learning materials and connections made between course content and personal needs...The results of this study support the application of Keller's (1987) model when designing online self-study courses " (p. 288). The authors point out that "Motivational design utilizes educational scaffolding to provide clear directions and purpose to keep students engaged, while also creating assessments that efficiently clarify learning objectives" (p.276).
General Standards 1 & 3	
Sheridan, K. & Kelly, M.A. (2010). The indicators of instructor presence that are important to students in online courses. *MERLOT Journal of Online Learning and Teaching, 6*(4). Available http://jolt.merlot.org/vol6no4/sheridan_1210.htm	Found that "The indicators that were most important to students dealt with making course requirements clear and being responsive to students' needs. Students also valued the timeliness of information and instructor feedback"

General Standards 2, 3 & 5	
Scripture, J. (2008). Recommendations for designing and implementing distributed problem-based learning. *The American Journal of Distance Education, 22*(4), 207.	Article focuses on Problem Based Learning (PBL) and discusses design elements that are factors in successful PBL inclusion.
General Standards 2, 3, 4, 5, 6	
Preston, G., Phillips, R., Gosper, M., McNeill, M, Woo, K., & Green, D. (2010). Web-based lecture technologies: Highlighting the changing nature of teaching and learning. *Australasian Journal of Educational Technology, 26(*6), 717-728.	A report from a larger study at four Australian universities to explore how web-based lecture technologies (WBLT) can best support learning and teaching" (para 1). Conclusions: Faculty need "to clearly articulate what is involved in learning for the particular unit of study, what role the lectures and other activities play in the learning process, and the role technologies play in supporting learning"
General Standards 3,5,6	
Armstrong, D. (2011). *A qualitative study of undergraduate students' approaches, perceptions, and use of online tools.* (University of San Francisco). *ProQuest Dissertations and Theses, Document ID 742477661.*	This dissertation describes undergraduate students' experiences and perceptions of online courses at two religiously affiliated universities in northern California. The author found that faculty communication, use of technology, structure of learning environment and nature of assessment were influential factors.
General Standards 3 & 5	
Brindley, J., E., Walti, C., & Blaschke, L. M. (2009). Creating effective collaborative learning groups in an online environment. *International Review of Research in Open and Distance Learning, 10(*3)	Authors were investigating impact on learner participation of grading of small group collaborative projects. Results of study indicated that : instructional strategies may be equally or more effective than assessment in encouraging participation (p.16)" - Those strategies include: transparency of expectations; clear instructions; appropriateness of task for group work; motivation for participation embedded in course design (group project needed to be completed in order for individuals to do final assignment); monitoring and feedback" (p. 10-11)
General Standards 4 & 5	
An, Y., & Reigeluth, C. (2008). Problem-based learning in online environments. *Quarterly Review of Distance Education, 9(*1), 1-16,105-106.	This article describes a study that looked at graduate online courses that used problem-based learning. It gives recommendations as a series of guidelines for designing and implementing problem-based learning for online courses.

General Standards 4 & 7	
Li, S., Fu, Y., Zhao, X., & Leh, A.(2009). Learners' preferences in using online learning resources. *Quarterly Review of Distance Education, 10*(3), 299-303,319.	This journal article uses action research in a graduate class and employs the Online Top-Down Modeling Model (Li & Liu, 2005) and identifies eight student preferences for online learning resources. The author believes that the study will assist designers in integrating effective resources into online courses.
General Standards 4,5,6 Beatham, M.D. (2008). Tools of inquiry: separating tool and task to promote true learning. *Journal of Educational Technology Systems 37(*1), 61-70.	The author reminds us that "Teachers must clearly distinguish for students the educational technologies (the tools or means) used to investigate a subject from the subject (the task) itself. Without this distinction, students develop critical and fundamental misconceptions about their subjects of study, usually confusing the tool for the task (p. 61). He recommends, " "make sure the task or purpose if clear. Begin with the end in mind, not the means toward the end. Tool should follow task" (p. 69).
Impelluso, T. (2009). Assessing cognitive load theory to improve student learning for mechanical engineers. *The American Journal of Distance Education, 23*(4), 179.	Article focuses on cognitive load theory and its consideration in course design; findings are that student dropout rate fell and learning increased when course was redesigned with cognitive load theory in mind - can apply to resources and materials, learner engagement and technology.
Diaz, V. (2010). Teaching and learning in review: Insights from the EDUCAUSE 2010 annual conference. *http://www.educause.edu/EDUCAUSE+Quarterly/EDUCAUSEQuarterlyMagazineVolum/TeachingandLearninginReviewIns/219115.*	Summary: (1) a corresponding research methodology should accompany experimentation with emerging technologies in the current fiscal climate (2) E-textbooks must offer more than cost savings (3) The next generation of learning management systems must focus on the needs of the learner and be adaptable enough to address those needs (4) the notion of customizable instruction represents the future of online learning environments [See whole summary online for more detail.]
General Standards 4,6,7	
Basham, J.D., Meyer, H., Perry, E. (2010). The design and application of the digital backpack. *Journal of Research on Technology in Education, 42(*4), 339-359.	Authors introduce the digital backpack as "an instructional technology solution…based on the notions of backwards design and the UDL [Universal Design for Learning] framework" (p. 357). Backwards design "is on the desired learning outcomes rather than on the type or amount of technology to be made available in the learning environment" (p. 339). Their study found that "a strong focus on a scaffold instructional design is important to engaging all learners...students can achieve the intended learning outcomes when they have appropriate supports, structure, and focus" (p. 354). [Study was within a small group of students on collaborative projects and problems]

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General Standards 5 & 6	
Kuyath, S. (2009). *The social presence of instant messaging: Effects on student satisfaction, perceived learning, and performance in distance education.* (The University of North Carolina at Charlotte). *ProQuest Dissertations and Theses, Document ID 742477661.*	This dissertation examined the use of instant messaging and its relationship to distance learner perceptions regarding social presence, quality interaction with instructor, and social isolation, amount learned, and others.
Patti, P. (2010). *The invisible classroom: Learning style and learner satisfaction in a virtual, audio conferenced technical training environment.* (Capella University). *ProQuest Information & Learning Doc ID 822365940.*	This study looks at interaction and use of video technology in synchronous corporate training settings. Findings are that student dissatisfaction results from technology issues and positive experiences emerge from live video being added from the classroom.
Kear, K., Woodthorpe, J., Robertson, S., Hutchison, M. (2010). From forums to wikis: perspectives on tools for collaboration. *The Internet and Higher Education, 13 (*4), 218-225.	This journal article examines the use of a wiki for student collaboration and communication. The author found that students found the wiki to be useful for collaboration, however there was some discomfort with editing each other's work and the issue of ownership arose. The use of the wiki for communication was found to be less advantageous and slower than the more traditional forum technology. Usability and sociability are noted as key requirements for Web. 2.0 tools.
Bailey, C., Card, K. (2009). Effective pedagogical practices for online teaching: Perception of experienced instructors. *The Internet and Higher Education, 12* (3-4), 152-155.	This journal article focuses on effective pedagogical practices and covers fostering relationships, engagement, timeliness, communication, organization, technology, flexibility, and high expectations in distance education.
General Standards 5,6,7	
Frick, T, Chadha, R., Watson, C. Want, Y., Green, P. (2009). College student perceptions of teaching and learning quality. *Educational Technology Research and Development, 57(*5), 705-720.	This article surveyed students (undergrad and grad) at multiple institutions and used self-reporting to assess learning time, how much was learned, satisfaction with course, perceptions of mastery of objectives and global course ratings. The authors report that instructional designers and teachers can use these scales to evaluate and to provide authentic tasks, activation of prior learning, demonstrations of what is to be learned, and to complete tasks with coaching and feedback, among others.

General Standards 5 & 6

Roblyer, M.D., McDaniel, M., Webb, M., Herman, J., & Witty J.V. (2010). Findings on Facebook in higher education: A comparison of college faculty and student uses and perceptions of social networking sites. *The Internet and Higher Education, 13*(3), 134-140	Study reports that students are more open to use of Facebook than are teachers. Study was with convenient, self-selected students, not necessarily fully online students.
Uzuner, S (2009). Questions of culture in distance learning: A research review. International Review of Research in Open and Distance Learning, 10(3) http://www.irrodl.org/index.php/irrodl/article/view/690/1273	The article provides a research review of 27 studies which focused on the issue of culture in distance learning. Branch's (1993) definition of culture is offered: "The patterns shaped by ethnicity, religion, socio-economic status, geography, profession, ideology, gender, and lifestyle" (Branch, 1993, 7). Recommendations for practice from the studies include: "To alleviate student anxieties [resulting from strong uncertainty avoidance cultural traditions] , course structure should be transparent with clear expectations for participation, assignments, learning activities, team work, grading, submission dates, and assessment". Creation of a safe place for sharing should be included if active participation in discussion is an expectation. Providing opportunities for students' to establish their "presence" is important. Instructors/designers should consider that "challenging and criticizing others' ideas may not be considered culturally appropriate in some cultural groups and that constructivist-pedagogy might be disengaging for students from cultural perspectives. (11-13). A related resource (Parrish & Linder-VanBerschot's Cultural Dimensions of Learning: Addressing the challenges of multicultural instruction) can be found at http://www.irrodl.org/index.php/irrodl/article/view/809/1497

General Standards 1 & 5

Yen, C., & Tu, C. (2008). Online social presence: A study of score validity of the computer-mediated communication questionnaire. *Quarterly Review of Distance Education, 9*(3), 297-310,348.	This study looked at social presence and its influence on online interaction. The authors conclude that social presence is multidimensional and "composed of 4 factors as hypothesized in the theoretical framework: social context, online communication, interactivity, and privacy, although revision of some test items was also suggested by the results." The purpose of the study was to "conduct a confirmatory factor analysis of the Computer-Mediated Communication Questionnaire scores."

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General Standards 5 & 7	
Hagan, P. (2009). *Exploring human connections in distance education at the post-secondary level: An Alaska experience.* (University of Hawai'i at Manoa). *ProQuest Dissertations and Theses, Document ID 304602207.*	This dissertation examines factors that contribute to student success in a location where students are often perceived as having low participation and graduation rates. The study suggests that social connections and technology supported activities contribute to positive outcomes.
General Standards 3,5,7	
Filimban, G. (2008). *Factors that contribute to the effectiveness of online learning technology at Oregon State University.* (Oregon State University). *ProQuest Dissertations and Theses, Document ID 304500250.*	This dissertation examines the relationship between critical pedagogy and online course design and best practices for traditional and online teaching that can be used. The study explores instructor, student and researcher observations.
General Standards 5 & 6	
Junco, R., Heiberger, G., Loken, E. (2010). The effect of Twitter on college student engagement and grades. J*ournal of Computer Assisted Learning,* DOI: 10.1111/j.1365-2729.2010.00387.x.	"This study provides experimental evidence [125 students] that Twitter can be used as an educational tool to help engage students and to mobilize faculty into a more active and participatory role" (p.1)
Rutherford, C. (2010). Using online social media to support preservice student engagement. *MERLOT Journal of Online Learning and Teaching, 6*(4). Available http://jolt.merlot.org/vol6no4/rutherford_1210.htm	"The results of this study indicate that there is a positive correlation between student use of a variety of social media resources and how students perceive their relationships with their fellow students and instructors as well as how they describe the overall quality of their educational experience."
Yun-Jo An (2010). Scaffolding wiki-based, Ill-structured problem solving in an online environment. *MERLOT Journal of Online Learning and Teaching, 6(*4) Available http://jolt.merlot.org/vol6no4/an_1210.htm	"The participants in this study reported that they depended on synchronous communication tools, rather than wikis, to discuss the project issues and make group decisions. The results of this study indicate that although wikis are effective for collaborative writing and editing, they are not very effective as a communication tool in the ill-structured problem solving process"
General Standards 6 & 7	
Roblyer, M., Davis, L., Mills, S., Marshall, J., & Page, L.(2008). Toward practical procedures for predicting and promoting success in virtual school students. *The American Journal of Distance Education, 22*(2), 90.	Student access to technology is important for student success. No course design details but research results indicate that student support in course is a factor in student success

General Standards 2,3,5,6,7	
Myers, D. (2008). *Assessing quality indicators in asynchronous undergraduate distance education courses.* (Nova Southeastern University). *ProQuest Dissertations and Theses, Document ID 230703083.*	The purpose of this study was to determine quality indicators in asynchronous distance education courses and final analyses indicated that "technical issues, course design, class procedures and expectations, interaction, and content delivery were factors in quality.
General Standards 6 & 8 Pomales-Garcia, C., Lopez, A., & Liu, Y. (2010). Design dimensions and attributes for Web-based distance learning modules. *The American Journal of Distance Education, 24*(1), 21.	This study addresses the design of a course in terms of clarity, organization, simplicity, structure, visual/aesthetical attractiveness, and excitement. It is included here because it provides a content analysis and also results of a study that addresses the overall visual impact and organization upon course design.
General Standards 3 & 7	
Davis, D. (2010). *Online learning: Quality benchmarks.* (Pepperdine University). *ProQuest Dissertations and Theses, Document ID 305249452.*	Using the Institute for Higher Education's Policy's Benchmarks for Success in Internet-Based Education instrument, this study looked at quality benchmarks that included institutional support, course development, the teaching and learning process, course structure, student support, faculty support, and evaluation and assessment.
Himer, L. (2010). *Quality indicators for evaluating distance education programs at community colleges.* (University of Missouri – Columbia). *ProQuest Dissertations and Theses, Document ID 304518115.*	One of the goals of this study was to find quality indicators specific to community college online programs and another was to determine stakeholder perceptions of these indicators. A literature review identified common standards and then a group of distance learning experts were queried regarding these standards/indicators. The categories addressed were: institutional support, curriculum and instruction faculty support, student support, evaluation and assessment and technical support.
General Standards 5,6,7	
Carranza, S. (2009). *A grounded theory of high-quality distance education programs: Student perspectives.* (The University of Wisconsin – Madison). *ProQuest Dissertations and Theses, Document ID 3348712.*	This author used a grounded theory approach. It identified high quality distance programs and interviewed students and identified 21 attributes of quality identified in five clusters. The study concluded that high-quality traditional and distance programs both contain similar attributes.
Sims, R. (2008). Rethinking (e)learning: a manifesto for connected generations. *Distance Education 29(*2), 153-164 DOI:10.1080/01587941802154954	The author sets a discussion of design in a transitioning learner base which will not be as teacher-centered as traditional. In an increasing mobile population he advocates for c3-learning - collaborative, contextual, and connected.

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Greenberg, G. (2011). From the ground up: Conceptions of quality in course design for Web-supported education. (Unpublished doctoral dissertation). The Ohio State University.	This dissertation uses activity theory to explore the interaction "between quality standards, faculty, staff, and managers and makes use of the Quality Matters rubric. Suggestion made in conclusion that design groups approach use of QM Rubric differently - depending of if it is presented as a required checklist or a set of guidelines to be applied on individual courses. Greenberg wrote, "primary finding of this study is that the Quality Matters rubric supported the design work of faculty and staff in significant ways - especially by helping to create a shared object for their course design activity." Some contradictions did arise in the activity as staff and faculty addressed the division of labor used at the institution for designing their web-supported courses (p. iii).

Classic literature on cross-culture/cultural inclusion

Collis, B. (1999). Designing for differences: Cultural issues in the design of WWW-based course-support sites. British Journal of Educational Technology 30 (3) 201-221.	Collis (1999) provides an overview of lit and suggests, "culture affects the individual's response to computer-related systems…culture also have a strong influence on the acceptance of, use of, and impact of learning-related interventions" (p. 202). Quotes Jin and Cortazzi (1998), in comparing the effect of class size in Western and Chinese schools, "argue that the instructional approaches in a particular instructional setting are 'embedded in a cultural context of beliefs, expectations, and values." (p. 202) "WWW-based course-support sites are an example of a learning intervention involving computer technology and as such their acceptance, use, and impact will be influenced by culture-related aspects"…"need to respond to increasingly diverse learner populations" (p. 202).
Gunawardena, C. N., Nolla, A. C., Wilson, P. L., Lopez-Islas, J. R., Ramírez-Angel, N. & Megchun-Alpízar, R. M. (2001). A cross-cultural study of group process and development in online conferences. Distance Education, 22 (1), 85-121.	Gunawardena, Nolla, Wilson, Lopez-Islas, Ramirez-Angel & Megchun-Alpizar (2000) found that there are significant differences in perception of Norming and Performing stages of group development in online conferencing between Mexican and US students. "Country differences rather than age and gender differences, accounted for the differences observed. Differences centered on perception of collectivism, low power distance, femininity ["attributes such as affection, compassion, nurturance, and emotionality – Hofstede, 1984)] p. 88), and high context communication.
McLoughlin, C. (2001). Inclusivity and alignment: Principles of pedagogy, task and assessment design for effective cross-cultural online learning. Distance Education, 22 (1) 7-29.	McLoughlin (2001)offers a "framework for culturally inclusive pedagogy that can be applied to online environments…that links culturally inclusive learning with curriculum and assessment design, using the principle of constructive alignment…to ensure that pedagogy and curriculum are flexible, adaptable and relevant to students from a diverse range of cultural and language backgrounds" (p.7).
Pincas, A. (2001). Culture, cognition and communication in global education. Distance Education. 22 (1) 30-51.	Pincas (2001) "Worldwide students encounter discourse problems rather than simple language difficulties" (p. 30). "The chief problem of trying to take a socio-cultural approach to education is that it involves the contradiction between growing nationalism (or ethnocentricity) on the one hand, and global connectedness, on the other.
Gudykunst, W. B. & Lee, C. M. (2002). Cross-cultural communication theories.	Points out that much of the cross-cultural communication literature is built on

In W. B. Gudykunst & B. Mody (Eds.), Handbook of International and Intercultural Communication (2nd ed.) (pp. 25 – 47). Thousand Oaks, CA: Sage Publications.	seminal work of Hofstede who identified cultural dimensions including power distance; individualism/collectivism; uncertainty avoidance; long-term orientation.

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