



JOURNAL OF THE  
RESEARCH CENTER FOR EDUCATIONAL TECHNOLOGY

KENT STATE  
UNIVERSITY

[www.rcetj.org](http://www.rcetj.org)

ISSN 1948-075X

Volume 5, Number 2  
Summer 2009

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Special Issue: Blended Learning (Part 2)

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## **Blended Program Development: Applying the Quality Matters and Community of Inquiry Frameworks to Ensure High Quality Design and Implementation**

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### **Abstract**

This paper describes how the *Quality Matters (QM)* and *Community of Inquiry (CoI)* frameworks can be applied at the program level to enhance curriculum development and maintain programmatic rigor when transforming traditional courses for the blended environment. The QM and CoI frameworks are summarized, and the application of these frameworks in the course design process is described. Explanations are provided of how the QM standards were applied to the design of individual courses to ensure the development of cognitive, social, and teaching presence in the transitioning of an entire master's of educational leadership (EDL) program from face-to-face to blended delivery. The paper concludes with practical advice for others desiring to move into the blended arena.

### **Introduction**

In a time of economic shortfalls, K-12 practitioners who are completing master's degrees are making tough decisions concerning the continuation of their degree programs. Transitioning face-to-face courses to online and blended ones has helped students save money on gas and childcare, as well as saved travel time by requiring fewer trips to campus. In addition, universities that have made this transition through faculty development of quality blended/online courses and a service delivery orientation that supports more technological tool choices can meet the needs of both non-traditional and millennial students (Bonk & Zhang, 2006).

This paper will demonstrate how the Quality Matters (QM) and Community of Inquiry (CoI) frameworks can be applied at the program level to enhance curriculum development and maintain programmatic rigor when transforming traditional courses to the blended environment. It will describe how components of these frameworks were applied to the course design process in transitioning a master's of educational leadership (EDL) program from strictly face-to-face to blended delivery to meet the needs of working professionals. We first summarize the QM and CoI frameworks. We then describe how the QM standards were applied to the design of individual courses across the EDL program to ensure the development of cognitive, social, and teaching presence within them. We conclude with practical advice for others desiring to move into the blended arena.

### **Quality Matters**

Quality Matters (QM) is a faculty-oriented, peer review process designed to assure quality in online and blended courses (see: <http://www.qualitymatters.org/index.htm>). The QM review process is centered on a rubric that was originally developed collaboratively by faculty and staff from University of Maryland institutions wanting to ensure the quality of shared online course offerings. The initial work on the Quality Matters framework was funded through a FIPSE grant, but the need for such a model was so widespread that it took on a life of its own. Today, it is a subscription-based service sponsored by [MarylandOnline, Inc](http://www.marylandonline.com)., which also offers a variety of training and QM course reviews. Currently, over 300 colleges and universities in 44 states are QM subscribers, including 11 statewide systems and several large consortia.

In the QM framework, quality in online courses is assured through a peer-review process in which trained faculty review the design and organization of their colleagues' courses. QM assumes that this review is formative and that courses will undergo a process of continuous improvement through to certification (see Figure 1 below). It is important to note, however, that QM reviews focus on the design and organization of online courses, and not on their implementation.

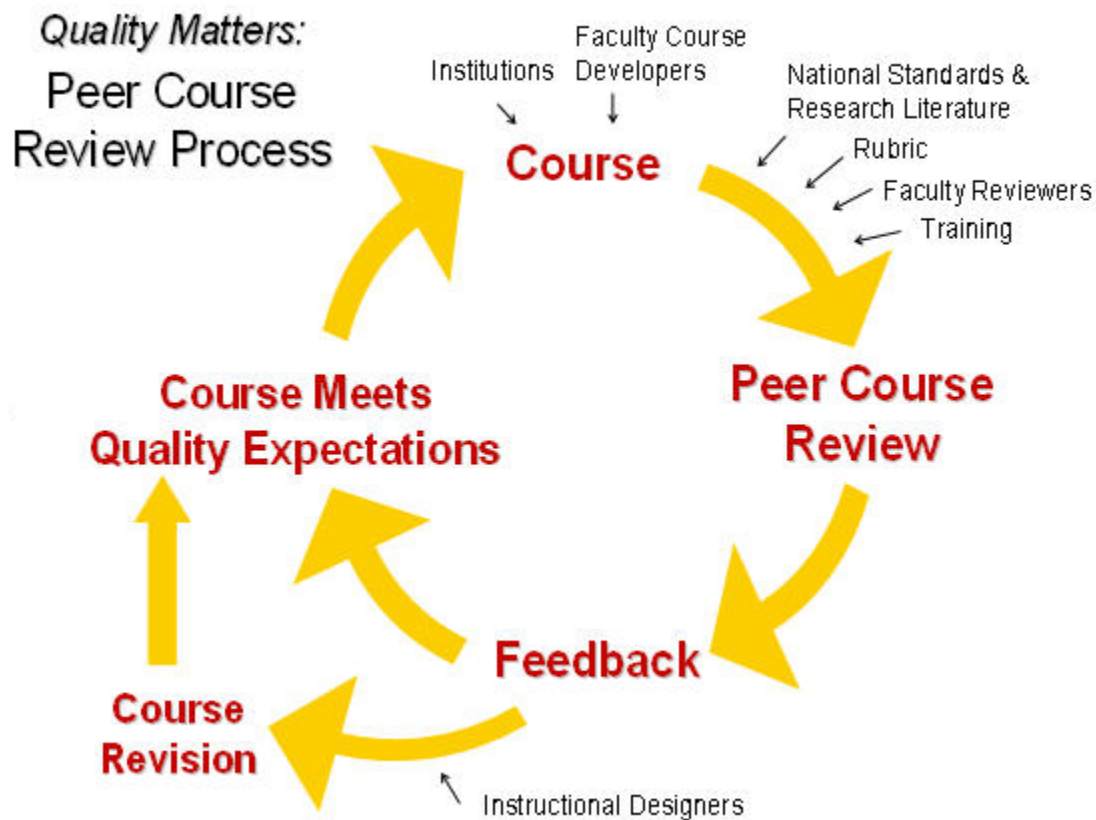


Figure 1: Quality Matters Continuous Improvement Course Review Model (Shattuck, 2007; used with permission)

Quality Matters peer reviews are guided by a [rubric](#) designed to assess the quality of online courses. It consists of 40 items describing criteria to be met. Items are assigned point values of 1, 2, or 3, depending on their perceived importance. To meet QM review expectations, courses must meet all 3-point criteria and earn a total of 72 points or more on the entire evaluation measure (out of a possible 85). Items in the rubric are organized into eight categories – course overview and introduction, learning objectives, assessment and measurement, resources and materials, learner engagement, course technology, learner support, and accessibility. The categories are described below.

**Course overview and introduction** is the first category in the rubric. It consists of 7 criterion items totaling a possible 11 points, the first two of which must be met. Courses that meet QM expectations must contain clear instructions on how to get started in the course and a clear statement of course purposes. Blended courses must also contain a clear description of which course elements are online and which are face-to-face. Less important criteria in this category include netiquette expectations, personal introductions by the instructor and students, and prerequisite content knowledge and technology skills (1 point each).

**Learner objectives**, the second category in the QM rubric, consists of 5 items totaling a possible 14 points. All but one of these must be met, making it a critical category. Criteria that must be met focus on course and unit objectives that are measurable, consistent, clearly stated, and include adequate instructions on how students can meet them. Interestingly, the only criterion in this category which doesn't have to be met (but which still counts for 2 points) is that objectives are appropriate to the course level.

**Assessment and measurement** is the third category in the QM rubric. It also consists of 5 items, all but two of which must be met, making it an important category. Items in this category add up to a possible total of 13 points. Criteria that must be met include assessments that match objectives, a clearly stated grading policy, and specific evaluation criteria. Items that are not critical but still important (counting 2 points each) include the provision of self-check or other practice assignments, and "sequenced, varied and appropriate" assessments.

**Resources and materials**, the next category, consists of 4 items with a possible total of 9 points. Two of these criterion items must be met. They require instructional materials to support the achievement of course and unit objectives, and to be clearly explained. Criteria of lesser importance are that instructional materials have "sufficient breadth, depth, and currency for the student to learn the subject" (2 points) and that resources and materials are appropriately cited (1 point).

**Learner engagement** consists of 4 items, two of which must be met, for a possible total of 10 points. The two critical criteria are that learning activities promote the achievement of the course objectives, and that learning activities foster student/instructor, student/content, and, "if appropriate to the course," student/student interaction. Criteria of lesser importance include clear statements concerning instructor availability and feedback, and clearly articulated requirements for student interaction (2 points each).

**Course technology** is an important category in that it consists of 7 items with a possible total of 14 points. Three of the course technology criteria must be met. They focus on technology tools and media that contribute to the achievement of the course objectives and support active student engagement, as well as provide clear and transparent course navigation. Other criteria in this category include use of technologies that are readily accessible to students (2 points) and compatible with current delivery standards (1 point), that clear instructions on accessing resources at a distance are provided (1 point), and that the course design takes full advantage of available technologies (1 point).

**Learner support** is, interestingly, the only category of criteria in which no items must be met. It consists of 4 items with a possible total of 6 points. The two 2-point items are focused on clear descriptions of academic and technical support available. The two 1-point items are focused on clear explanations of basic research, writing, and technology expectations for the course.

**Accessibility** is the final category in the QM rubric. It consists of 4 items with a possible total of 8 points. Only one criterion item in this category must be met but it is an important one – conformance to ADA standards and institutional policies regarding accessibility. Other criteria in this category include screen readability (1 point), course pages and materials which provide equivalent auditory and visual content (2 points), and links that are self-descriptive (2 points).

Although the Quality Matters framework is relatively new, preliminary research on its effectiveness is promising. For example, Rick Aman (Legon, Runyon, & Aman, 2007) surveyed students enrolled in QM-

certified courses (62 responses), in non-certified courses at QM institutions (33 responses) and in courses at non-QM institutions (77 responses). He found that students enrolled in QM-certified courses and in non-certified courses at QM institutions were significantly more satisfied than students enrolled in courses at non-QM institutions.

Jean Runyon (Legon, Runyon, & Aman, 2007) explored the relationship between course design and learner interaction with course content in a large enrollment class at the College of Southern Maryland. As part of the Quality Matters review process (Figure 1), each learning module in this information technology course was revised in 3 ways: 1) creation of a Learning Guide (explicit roadmap), 2) reorganization of presentation and design, and 3) addition of classroom assessment techniques (CATs) in each course module. Runyon compared student grades before and after the QM redesign and found they were higher after the redesign (more "A"s, fewer "F"s). She also found greater learner interaction with course materials among students in the redesigned version of the course.

Although little research has been completed to date concerning the efficacy of the Quality Matters (QM) framework, it, and/or parts of it are very widely used to assess online course design. The QM framework, however, only addresses course design. To assure high quality blended courses and programs, implementation, i.e. the processes of teaching and learning in a blended format, must also be addressed. The Community of Inquiry (CoI) framework does just that.

### **Community of Inquiry Framework**

The Community of Inquiry (CoI) framework (Garrison, Anderson & Archer, 2000) is a process model of online learning (see: <http://communitiesofinquiry.com/>). It is grounded in a collaborative constructivist view of higher education and assumes that effective online learning requires the development of a course community (Rovai, 2002; Shea, 2006) that supports meaningful inquiry and deep learning. The CoI framework has been quite widely used to inform both research and practice, and an increasing body of research supports its efficacy for both describing and informing online learning (Arbaugh, et al., 2008; Swan, Garrison, & Richardson, in press).

Building from the notion of social presence in online discussion, the CoI framework represents the online learning experience as a function of the relationship between three presences: social presence, teaching presence, and cognitive presence (see Figure 2). The CoI framework suggests that online learning is located at the intersection of these three presences, that is, it views all three presences as working together to support deep and meaningful learning processes.

## Community of Inquiry

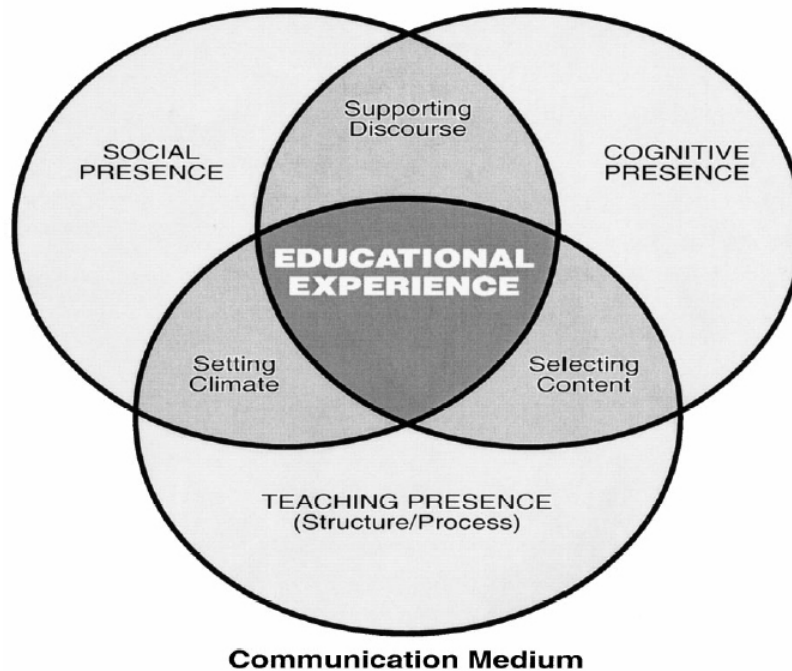


Figure 2: Community of Inquiry Framework (Garrison, Anderson & Archer, 2000; used with permission)

**Social presence** refers to the degree to which learners feel socially and emotionally connected with others in an online environment. A number of research studies have found that the perception of interpersonal connections with virtual others is an important factor in the success of online learning (Picciano, 2002; Richardson & Swan, 2003; Swan, 2002; Swan & Shih, 2005; Tu, 2000). Garrison and Anderson (2003) identified three elements that contribute to the development of social presence in online courses -- *affective expression*, *open communication*, and *group cohesion* -- which research suggests are affected by both instructor behaviors (Shea & Bidjeramo, 2008; Shea, Li, Swan, & Pickett, 2005) and course design (Swan & Shih, 2005).

**Teaching presence** is defined as the design, facilitation, and direction of cognitive and social processes for the realization of personally meaningful and educationally worthwhile learning outcomes (Anderson, Rourke, Garrison, & Archer, 2001). Researchers have documented strong correlations between learner's perceived and actual interactions with instructors and their perceived learning (Jiang & Ting, 2000; Richardson & Swan, 2003; Swan, et al., 2000), and between teaching presence and student satisfaction, perceived learning, and development of a sense of community in online courses (Shea et al., 2005). In fact, the body of evidence attesting to the critical importance of teaching presence for successful online learning continues to grow (Garrison & Cleveland-Innes, 2005; Murphy, 2004; Swan & Shih, 2005; Vaughn & Garrison, 2006; Wu & Hiltz, 2004), with the most recent research suggesting it is the key to developing online communities of inquiry (Shea & Bidjeramo, 2008). Garrison and Anderson (2003) identified three elements that contribute to the development of teaching presence in online courses -- *design and organization*, *facilitating discourse*, and *direct instruction* -- all of which deserve careful attention.

**Cognitive presence** describes the extent to which learners are able to construct and confirm meaning through course activities, sustained reflection, and discourse (Garrison, Anderson, & Archer, 2001). In the Col framework, cognitive presence is seen as consisting of four phases of practical inquiry, adapted from Dewey (1933), which begins with a *triggering event* and extends through *exploration* and *integration* to culminate in *resolution* (Figure 3).



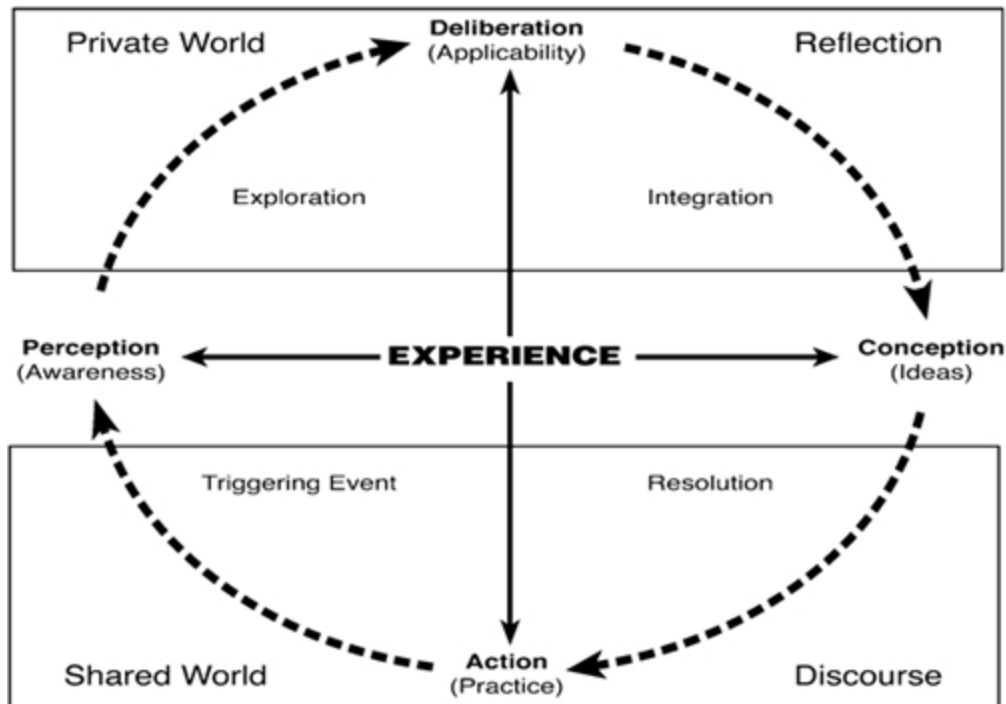


Figure 3: Practical Inquiry Model (Garrison, Anderson, & Archer, 2001; used with permission)

While researchers have been able to find evidence of practical inquiry in online discussion, several studies have found that online discussion rarely moves beyond the exploration phase where participants share information and brainstorm ideas (Garrison & Arbaugh, 2007; Kanuka & Anderson, 1998; Luebeck & Bice, 2005; Murphy, 2004 ). It is most likely that much of this has to do with the nature of the assignments and instructional direction (teaching presence) provided (Garrison & Arbaugh, 2007). In studies in which students were challenged to resolve a problem and explicit facilitation and direction were provided, students did progress to resolution (Akyol & Garrison, in press; Meyer, 2003; Murphy, 2004; Shea & Bidjermo, 2008; Wang & Chang, 2008).

### Transitioning Administrative Leadership Courses to Blended Delivery

The [Educational Leadership Program](#) (EDL) at the University of Illinois Springfield (UIS) provides master's degrees for educational practitioners who desire to become school administrators or teacher leaders. The EDL department has grown from a full-time instructional staff of three professors who taught strictly face-to-face classes when it was formed in 1997 to an instructional staff of 12 full-time professors who teach face-to-face, blended, and fully online classes today. Its development from a small department to one of the largest on campus can be attributed to visionary leadership, faculty who regularly review and refine class offerings, and the development of a nationally recognized online program.

EDL's teacher leadership program is fully online. In 2008, EDL faculty decided to transition its other major program, administrative leadership, from traditional face-to-face to blended delivery to enhance student recruitment by providing courses that would reduce student travel time by half. The online experience of the faculty provided the background necessary for effective development of blended offerings. The QM rubric and the Col framework were used to guide this process to assure that all courses in the blended program would be of the same high quality as the face-to-face courses they were replicating.

Understanding the QM framework and its relationship to the development and teaching of online lessons was essential for instructors as they created their blended offerings. The QM framework served as the overriding guide for the EDL program as courses were transformed into their blended versions. However,

as previously noted, the QM framework is merely a course design model. EDL faculty also wanted to make sure that the implementation of the blended courses would result in the same level of critical discourse and higher order thinking that had always been a hallmark of its face-to-face and online courses. Linking the QM rubric to the Col framework helped EDL professors produce high quality blended courses that were designed to support the development of a community of inquiry. These links are made explicit in the sections which follow and organized around the three presences that define the Col framework. A comparison of the eight broad standards of the [QM rubric](#), developed to evaluate the design of online and blended courses, with the social, cognitive and teaching presences described in the Col model (Garrison et al., 2000) shows a strong relationship between the two.

## **Social Presence**

In this section, links between three QM standards and social presence are explored. Developing social presence in online and blended courses is essential for fully engaging students and creating a sense of community. Social presence was accordingly an important focus during the development of EDL's blended administrative leadership courses. Social presence can be enhanced through the careful development of learning objectives, learning engagement, and learner support standards described in the QM rubric. Each of these identified standards, the manner in which they support the development of social presence, and how they were attended to in the course design and implementation process are addressed below.

### *QM Standard 2 - Learning Objectives*

Courses in which the goals are clear and assignments that support these goals are a major part of any successful program, and, as noted above, a critical component of the QM rubric. Addressing the development of a blended class, Welker and Berardino (2005) state that a "course must be fully prepared at the beginning of the semester since building the course as the class progresses creates confusion for the students" (p. 47). If a course lacks this careful planning, they argue, the teacher runs the risk that students will sense there are two separate and disconnected courses. Aycok, Garnham, & Kaleta (2002) further note that students in blended courses need clear explanations and rationales for the blended format and relationships between online and face-to-face components since the concept is new to them. The development of social presence, and in particular its open communication element, will only take place when students are comfortable with their learning environment, hence, clear and consistent goals and objectives are likewise critical to its emergence.

However, many educators would argue that clarity and organization are not enough. While, learning is clearly social, too often educational structures are not. Too often the student becomes "a passive viewer of slides, listener of lectures, screen and mouse clicker or a quiet taker of evaluations" (Masie, 2006, p. 25). As administrative leadership courses within the EDL department evolved from a face-to-face to a blended format, a major focus was thus on the development of assignments designed not only to support clear results, but also to maintain student interactions, and therefore the development of social presence, within the both the online and face-to-face parts of the courses.

One such example is an assignment based on students' observations of another teacher in their building in which the student must present a narrative report in a specifically designed format. In face-to-face classes this lesson was introduced through a presentation of a sample paper by the instructor, a handout describing the most common mistakes found in the papers, and followed by student questions. In the blended format the lesson begins similarly, but social interaction was enhanced and the quality of submissions elevated when each student paper was placed online and assigned classmates responded to the submissions using a "Critical Friends Sheet" designed specifically for the assignment. Students took great care in helping each other correct mistakes and add missing sections, with the end result that resubmitted papers were exemplary. At the same time, the process also resulted in a stronger social structure and greater group cohesion as each student depended upon and helped others. It is important

to note that what made this activity work so well were the explicit instructions given for both the formatting of reports and the provision of feedback.

#### *QM Standard 5 - Learner Engagement*

Piaget (1952) believed that learning is a dynamic state, a philosophy that runs counter to the passive state created by the traditional lecture and text pedagogies. Active learning requires learner engagement as is reflected in the learner engagement standard of the QM rubric and the affective expression, open communication, and group cohesion categories described in the Col model. Indeed, the development of a sense of community is critical to learner engagement, and, many believe, can be a natural outcome of blended learning done well. Rovai and Jordan (2004), for example, found that students in blended courses felt a stronger sense of community than students in traditional or fully online courses.

In EDL's blended courses, students were also engaged through the use of technology. Technology can enhance instruction by forcing students to engage with content and make sense of things (Duffy & Jonassen, 1992). This is true in any type of classroom, but it is essential for online and blended classes. Each class must be designed to assure that students are answering questions, completing projects, and communicating with the instructor and each other in a community effort to learn the material. This can be accomplished through online group projects, student critiques of their colleagues, and the design of lessons or explanations about the course material (Swan, 2004).

Some students thrive in the classroom setting and learn by listening to and speaking with other students, while other students respond better in the online environment because they are given the time to consider their responses and are less reluctant to respond (Young, 2002). Thus, the blended course development process permits the creation of an instructional environment that can be positive for both types of students. In the administrative leadership program, careful design and integration of online and face-to-face discussions assured student interaction across delivery modes, further supporting the development of social presence among course participants.

There are many tools and applications that can be used to increase student interaction with each other and with the instructor. Discussion boards, email, social networking, embedded audio feedback, podcasting (<http://www.uis.edu/podcasting/subscribe/index.html>), and dozens of other interactive and, in many cases, audio/video-enhanced presentations bring life to online activities. Each of these can be a tool for engagement and enhance student learning, but the need for proper support of these tools and adequate training in their educational uses is essential for their effective use. This is where learner support enters the discussion of social presence.

#### *QM Standard 7 – Learner Support*

With the myriad of hardware, software, and instructional applications available to instructors for the enhancement of instruction and engagement of students, it is essential to provide adequate training and support to assure student success. Chaney et al. (2007) found that students must be provided with clear information and orientation to the technology along with access to technical support. Learner support is a major strength of the online and blended programs at UIS. [Information Technology Services \(ITS, 2009\)](#) provide support, advice, and training activities for students including assistance with accounts/passwords, computer labs, student technical support, personal computer support, and web publishing and e-docs workshops. While the use of social technologies can enhance the development of social presence, this will clearly never take place unless students are comfortable with their use.

## Teaching Presence

Garrison and Anderson (2003) noted three elements that contribute to the development of teaching presence in online courses. These elements include design and organization, facilitating discourse, and direct instruction. The University of Illinois Springfield focuses on teaching presence in the online courses offered in both the core and elective classes of the EDL program. Syllabi reflect the expectations that students may hold for faculty, as well as the expectations for students' commitment to the class, and include the elements needed to ensure teaching presence through an explicit summary of the organization of course work, an outline of discourse expectations, and the designation of content standards and objectives met through direct instruction. EDL faculty retained this focus on teaching presence when transitioning traditional administrative leadership courses to blended formats. The sections which follow explore how they kept this focus through use of the QM framework in relation to the three elements of teaching presence.

### *Design and Organization*

Instructional design for EDL's administrative leadership blended courses was completed by faculty with recursive reference to the QM framework. Interactions with campus instructional designers provided support for faculty and a second-level QM checkpoint, as course objectives (QM 2), implementation of learning activities (QM 4), and pedagogically appropriate technologies (QM 6) were chosen for the delivery of instruction. As the courses took shape, checkpoints were also established to ensure that learning objectives were being met (QM 2). Assessments were constructed that demonstrated both formative and summative learning. Learning objectives and assessments were purposefully kept consistent between course sections to meet specific course measurements (QM 3). However, learning activities and technologies to support the identified objectives were allowed to vary depending on the teaching style of the faculty implementing individual class sections.

Through a series of faculty training sessions provided by [Information Technology Services](#) and the [Office of Technology Enhanced Learning/Center for Online Learning and Research](#) (2009), faculty were supported as they designed and delivered coursework in the blended format. Training sessions included a [day-long, annual event](#) that showcases a myriad of pedagogical technology instruction. The OTEL mission and its ability to assist with the development of pedagogically sound online and blended instruction has further been expanded with the creation of [Center for Online Learning, Research, and Service \(COLRS\)](#). COLRS (2009) is the UIS hub for all learning about online education.

Additionally, grassroots faculty support related to best practices in e-learning was provided through the [Community of Practice for E-Learning \(COPE-L\)](#). As a community of practice (Wenger, McDermott, & Snyder, 2002) COPE-L aspires to: 1) share knowledge and best practices related to e-learning; 2) develop informal networks and mutually helpful relationships among members; 3) identify problems and seek solutions to problems shared by members; and 4) provide opportunities for members to explore and innovate in the area of e-learning. COPE-L's main area of interest is e-learning and it is specifically involved with instructors who are engaged in the development and delivery of online and blended courses and programs and technology enhanced courses. All of the faculty involved in the administrative leadership program's transition to blended learning were founding members of COPE-L and remain active in its activities.

### *Facilitating Discourse*

The second category identified by Garrison and Anderson (2003) in the Col model is facilitating discourse. Fully online teacher leadership courses in the EDL program are strengthened through discussion boards that engage students and lead to higher order thinking as defined by Bloom, Englehart, Furst, Hill, & Krathwohl (1956). This lesson learned through many years of practice in the online Master Teacher Leader (MTL) program was carried into the blended course development for EDL administrative leadership courses. Faculty developing these courses participated in a series of professional

development offerings that assisted them with the deliberate and intentional construction of questioning methodology to most effectively engage students in the learning process (QM 5). Facilitating discussion also involves modeling. Modeling didactic discussion provides students with a structure that allows self-directed learning to occur in online forum. Faculty involved in the transition to blended learning were introduced to this concept and encouraged to engage in online modeling practices through a modeling workshop and ongoing support.

### *Direct Instruction*

Direct instruction is the third element in teaching presence (Garrison & Anderson, 2003). Vygotsky (as cited in Wertsch, 1985) argued for the scaffolding of cognitive content by more expert others in a manner that supports learners' knowledge construction (QM 5). The potential for such scaffolding in online and blended courses is clearly related to the expertise that faculty members bring to them. The EDL program ensures direct instruction in this collaborative constructivist mold through employing professors and adjuncts who are highly qualified practitioners within the field, as well as researchers who are experts in the discipline area in which they are teaching. Thus, direct instruction within the EDL program allows students to connect with experts in the field of educational leadership who scaffold their learning through online and face-to-face discussions, feedback on assignments, and email and phone interactions (QM 7). One direct instructional method that has proven successful in engaging students is the use of podcasts. The Teacher Leadership Foundations course provides an example of how podcasts can be used to engage students through direct instruction. A sample of a typical week's podcast is available through iTunes U: [Week 2 Reframing School Culture](#).

Teaching presence has been noted in multiple research studies (Anderson et al., 2001; Garrison & Cleveland-Innes, 2005; Jiang & Ting, 2000; Murphy, 2004; Richardson & Swan, 2003; Swan & Shih, 2005; Swan et al., 2000; Vaughn & Garrison, 2006; Wu & Hiltz, 2004) as critical to establishing quality online and blended instruction. EDL programs at UIS acknowledge the relationship between teaching presence and program quality through the use of highly qualified faculty who are given support in establishing strong teaching presence in their blended classrooms.

### **Cognitive Presence**

In the Col framework (Garrison et al., 2001) cognitive presence consists of the four phases of practical inquiry (Figure 3). As stated earlier, the concept was adapted from Dewey's (1933) early work in constructivist learning theory and inquiry-based learning. Practical inquiry has been standard practice in face-to-face courses in the EDL administrative leadership program for many years, and faculty felt it was imperative to retain this focus when moving the program to its new blended format.

The QM framework focuses on the design and organization of online courses, and not on processes, but much can be learned by utilizing the QM rubric to assess the quality of online courses. The QM rubric identifies the need for clear course expectations (QM 1) which, in the case of EDL's new blended courses, assured that the rigor of the face-to-face classes was maintained in their online portions. The QM rubric also requires blended courses to provide information on which course activities are face-to-face and which are online, a criterion which greatly enhanced student understanding of the ways in which problem-based learning in these courses was integrated across the face-to-face and online portions of classes.

Course overviews (QM 1), learner objectives (QM 2), and assessments (QM 3) in the QM model connect well with the development of cognitive presence. The connection between learner objectives and student engagement are critical when developing appropriate problem-based activities. EDL program developers previously mapped curricular objectives across courses in the traditional administrative leadership program. In order to connect course content and assessments within the blended format, faculty determined which activities would be enhanced with online delivery and which were best left face-to-face. This mindful integration of face-to-face and blended activities enhanced the inquiry process.

Course technology requirements in the QM framework (QM 6) encourage faculty to explore new technology tools and media that support student engagement and contribute to better mastery of course objectives. In the EDL administrative leadership transition, meeting this criterion resulted in the transformation of the clinical course requirement from a traditional portfolio to an e-portfolio. This new portfolio demonstrates candidates' experiences and proficiency in standards-based activities at their school sites over a two-semester time frame. Through the use of e-portfolio tools, students have been able to enhance their overall demonstration of goal attainment through use of video clips, pictures, and blog entries, reflections on problem solving, and website development, resulting in the storage and showcasing of very large files. The change to the blended format thus resulted in students' creation of substantial and comprehensive portfolios that they could share with professional colleagues and use for employment and advancement purposes. Moreover, student reflections on portfolio artifacts, a course requirement, enhanced their understanding of clinical practice.

Preparing non-traditional graduate students who teach full-time in K-12 classrooms using real-world problems common to building-level leaders lends itself well to the development of cognitive presence. By developing lessons that create the opportunity for student inquiry as described by Dewey (1933), EDL faculty provide triggering events that encourage group exploration. The use of blended activities enhances face-to-face interaction with online reflection and discourse, enhancing learner engagement (QM 5) and encouraging integration. Integration phase activities have the added benefit of better preparing prospective school leaders for more effective communication and interaction with teachers and parents. The final phase of resolution comes, then, not in a lock-step and linear fashion, but in a more flexible manner where previous stages may be revisited before the most viable solution is found.

While Garrison & Arbaugh (2007), Luebeck & Bice (2005), and Murphy (2004) found evidence of practical inquiry in online discussions, they also noted that online discussions rarely move past the stage of exploration. In the EDL administrative leadership program, clinical approaches to learning move students to resolution. For example, in the Supervision of Instruction course, students learn data collection techniques in order to provide meaningful feedback to help a real teacher improve his or her teaching performance. This clinical approach moves students beyond what they discuss in online forums and into designing practical and viable solutions through group problem solving. The EDL faculty developers devised a system which requires students to critique and evaluate their classmates' performance after the latter collect and post teacher observation data and feedback on a classroom observation. The face-to-face portion of the project includes an in-depth presentation of the cognitive inquiry phase, followed by an in-depth critique online. Knowing that online interactions typically decrease as students move through a problem from exploration to resolution, EDL professors intentionally promote further communication during all phases to help students connect course content with the daily tasks of school leadership. This process moves students to the integration and resolution phases of practical inquiry.

The development of cognitive presence in which integration and resolution occur can also be seen in the design of the EDL Organizational Dynamics class. Students study the four frames of leadership as described by Bolman and Deal (2006) through lectures, in-class and online activities, and ultimately, a group presentation. The group presentation requires the identification of a problem in one of the students' educational settings, an explanation of how the problem and the members of the identified educational community are related to the characters in *Who Moved My Cheese* (Johnson, 1999), and how the group would resolve the problem using the four frames of leadership. Project development is accomplished through ongoing negotiations across the course's face-to-face and online environments. Discussion boards and e-docs are used to track student activity and permit the instructor to observe a group's progress and make comments as necessary. The end result documents the integration and resolution phases of the Practical Inquiry Model (Garrison et al., 2001).



## Conclusions

In this paper, we introduced the Quality Matters (QM) and Community of Inquiry (CoI) frameworks and discussed how they informed the transitioning of traditional face-to-face courses in administrative leadership to a blended learning format. Using the QM rubric as a guide for the development of courses and course activities with an eye toward the development of the CoI presences in course implementation provided the structure to insure that the high quality and inquiry focus of the original courses were preserved. Our EDL administrative leadership program is up and running in its blended format and student satisfaction is high. Perhaps more importantly, faculty believe that if anything, the transition has enhanced student learning. We conclude here with a few lessons we took from the development of our blended program which we hope will be of use to others considering a move into the blended arena.

### *Lessons Learned*

Universities considering the blended format must first evaluate the level of support that will or can be provided by the university. Lack of quality support will limit the effectiveness of blended program development. Explicit guidelines for developing blended courses are an important aspect of support. In our experience, the QM rubric and the CoI framework provided excellent scaffolds for both the development and the implementation of blended courses. In our opinion, support should include some such explicit guidelines.

Following the provision of support, the next step in creating a blended program is the identification of classes and activities that can be adapted to online environments. All UIS professors who developed blended classes had previous experience as totally face-to-face and online instructors. This professional instructional background made the development of blended classes easier, as these professors had good insights into what works and what doesn't in either environment. It is thus important to make sure that instructors and course designers have some experience teaching face-to-face and online, and if they don't to provide them with it.

For students with only face-to-face experience, making the transition is a challenge that must be considered from the beginning of the course design process. In-depth, face to face explanations and demonstrations on how to access and use all areas of course websites must be planned and provided. Doing so assures that student knowledge of and comfort levels with the online portions of the blended offerings are at the highest possible level. In our experience, the importance of the development of students' comfort with and understanding of the blended format should not be underestimated. Unless students are comfortable in what may be a strange new learning environment, teaching, social, and cognitive presence cannot emerge.

Even the best efforts and plans require analysis and reflection in order to assess instructional effectiveness and student satisfaction. The EDL department distributes a survey for every blended course to obtain student feedback regarding the design and effectiveness of the blended class entitled *Blended Learning: Reconnecting with the Capital Region*. In addition, each professor has the option to develop a midterm online survey specifically designed for his or her course to provide guidance on student perceptions of the course and, if necessary, make adjustments as the course progresses. While there is no quantifiable evidence of the effectiveness of these measures at this point, the initial surveys begin the data collection process that will lead to course refinement and improved student satisfaction in accordance with the QM continuous improvement model. We highly recommend including such evaluation mechanisms in any program development process.

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