From the Ground Up: Conceptions of Quality in Course Design for Web-Supported Education

Dissertation

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ABSTRACT

Higher education in the U.S. is experiencing a wave of distance education activity, with nearly twenty percent of all U.S. higher education students taking at least one online course in the fall of 2007 (Allen & Seaman, 2008). Accompanying this activity is a renewed concern on the part of distance learning administrators, faculty, and professional associations about the overall quality of these efforts. Governments and institutions use a variety of approaches to measuring quality—internal and external committee reviews, formal assessments using standards and benchmarks created by government or professional bodies, and reviews of inputs and outputs akin to the quality assurance approaches of business and industry.

This interpretive study explored the interaction between quality standards, faculty, staff, and managers by conducting an instrumental case study of one institution’s efforts to implement quality at the level of course creation and design. Big Town Community College’s Department of Distance Education and Instructional Support currently uses a widely available set of course design standards to assess and improve quality in its offerings of online courses. The course design standards, in the form of a rubric, are made available by an organization called Quality Matters (MarylandOnline, 2006). The study uses activity theory to analyze data and theorize about the case (Engeström, 2008).
The 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. However, it also led to contradictions in the activity—both between staff and faculty and the design standards themselves, and also between staff and faculty and the division of labor used at the college for designing a Web-supported course. Other findings revolved around the question of how the project management model in use at Big Town supports and hinders the implementation of the Quality Matters rubric. These findings revealed the importance of the way in which an institution implements the Quality Matters process, particularly in regard to whether it treats the design standards as rules to be enforced, or as guidelines with which to begin a conversation about quality. Other findings concern the impact of increasing faculty and staff workloads due to Web-supported course design, and the importance of the working relationship between faculty members and instructional designers as they develop a course.
DEDICATION

Dedicated to the memory of three scholars past:
Suzanne Kidd Damarin, David Stanley McLellan,
and Hilary McLellan
ACKNOWLEDGMENTS

I have many people to thank for their support, advice, and encouragement about this work. That list begins with my two advisors. I began my dissertation work with Dr. Suzanne Kidd Damarin. Dr. Damarin’s bold advice on my topic, her critical eye for detail, and her pointed questions set me on a steady course in my research. After her untimely death, Dr. Richard Voithofer, Suzanne’s close colleague, picked up where she left off and, without missing a beat, guided me toward the conclusion of the study, with crucial reader feedback and editorial suggestions. I thank my committee members, Dr. David Stein and Dr. Anika Ball Anthony, for their guidance. Dr. Constance Wanstreet gave timely guidance as my peer debriefer. Dr. Jan Nespor also gave me helpful early advice on my topic and choice of theoretical perspective.

An interpretive case study rises or falls on the cooperation of its participants, and in this I could have done no better than work with the distance learning department at Big Town Community College—its faculty, staff, administrators, and students. From my first tentative contacts with the department’s leaders, to every encounter with its staff and collaborating faculty, the experience was engaging, open, and moving for me personally. I thank these people from the bottom of my heart.

Lastly, my deepest thanks to our family and friends, who encouraged me to enter a doctoral program and carry out this research. You were the ones who sustained my
interest in the work when it hit rough patches, and help me persevere.

Of course, being married to a scholar, who also served as my dissertation coach, was the best and most meaningful help of all—and for that, Margie, I can only say thank you.
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Chapter 1
INTRODUCTION

Higher education in the U.S. is experiencing a wave of distance education activity, with over twenty percent of all U.S. higher education students taking at least one online course in the fall of 2007 (Allen & Seaman, 2008). Accompanying this activity is a renewed concern on the part of distance learning administrators, faculty, and professional associations about the overall quality of these efforts (Anderson, 2004; Maguire, 2005; Perraton, 2004; Robinson, 2004; Sherry, 2003). In educational program evaluation circles, quality is defined as “… study designed and conducted to assist some audience to measure and examine an object’s merit and worth” (Stufflebeam, 1999, p. 3). Most governments and institutions in the world involved in distance education make an effort to gauge the quality of their courses and programs (Robinson, 2004.). These quality projects have developed in higher education during a period of increased public scrutiny of universities worldwide over the past fifteen years, especially over issues of efficiency, cost, research output, and number of students graduated. (Barnett, 1992). Governments and institutions use a variety of approaches to measuring quality—internal and external committee reviews, formal assessments using standards and benchmarks created by
government or professional bodies, and reviews of inputs and outputs akin to the quality assurance approaches of business and industry (Robinson, 2004).

Quality as a descriptive term in higher education is notoriously hard to define (Ball, 1985; Fresen, 2005). Much of the difficulty stems from its multi-dimensional nature. Christopher Ball (1985), a researcher of quality in British universities, puts it this way:

There is no single dimension of quality of the sort that I think the general public would like to have…This is not the picture at all. Quality subsumes a number of interlocking, cross-cutting criteria which make the picture extraordinarily complex. (p. 99-100)

For the purposes of this study, I will define quality as “…continuous improvement in the search for excellence” (Fresen, 2005, p. 1). The term quality assurance refers to the practice of preventing faults from occurring within a process or system, while the term quality management refers to “…initiatives (either internal or external to an organization) which are undertaken in the quest to assure and manage quality” (Fresen, 2005, p. 1). Please refer to the Definition of Terms on page six for further quality and distance education terminology.

In the United States, quality reviews are closely aligned to the criteria maintained by accrediting bodies for distance education (Robinson, 2004). For example, all eight regional accrediting bodies covering the United States published a jointly agreed to list of standards for distance education in 2002, through the Council for Higher Education Accreditation (Council for Higher Education Accreditation, 2002). Numerous professional organizations—such as the American Council on Education, the American
Distance Education Consortium, and the Western Cooperative for Educational Telecommunications—have developed standards and benchmarks for such programs, and these standards lists hold many items in common (Thompson & Irele, 2007). Such commonality might suggest agreement among institutions regarding the meaning of quality in distance education practices, but this is not the case. In fact, the conversations about quality in the United States are fraught with differences over the definition of quality; officials’ ability to measure it; the appropriateness of quality models borrowed from business and industry; the value of internal versus external regulation; and whether the high cost of quality evaluation is worthwhile to society (Barnett, 1992; Brennan et al., 1997; Christie & Stehlik, 2007; Robinson, 2004; Thompson & Irele, 2007). The major parties to these discussions in the United States are academics, university administrators, state governments, professional associations, and accrediting organizations (Barnett, 1992).

Most of these debates about quality are taking place at the programmatic level and above. I argue that many of these issues also need to be examined in specific institutions at the level of course design, and should include the views of faculty and staff who create courses. This study uses activity theory, as articulated by Engeström (2008), to explore how faculty and staff at one college in the Midwest implement quality standards in distance learning courses, with an eye to the dynamics of relationships between core institutional stakeholders: faculty, students, administrators, instructional designers, and project managers. Activity theory allowed me to identify tensions and contradictions during the design process that function as sources of innovation and change in Web-supported course design.
Study Background

Colleges and universities in the United States with significant commitments to distance education programs are pursuing definitions of course quality and implementing quality assurance measures. In a review of the literature, Frydenberg identified nine categories describing quality that recur: institutional commitment, technology, student services, instructional design and course development, instruction and instructors, delivery, finances, regulatory and legal compliance, and evaluation (Frydenberg, 2002, p. 3-9).

Most quality assessment schemes in the United States proceed by breaking down categories such as the above into standards and indicators and creating rubrics by which to numerically score distance education programs (Thompson & Irele, 2007). Some observers of the quality movement warn, however, that it risks placing too much emphasis on easy-to-gather quantitative data (Christie & Stehlik, 1997; Robinson, 2004). Bernadette Robinsons suggests that “…approaches which concentrate on the measurable at the expense of educational worth & value are likely to be counter-productive in the longer term” (Robinson, 2004, p. 204).

Additionally, these approaches avoid examining the underlying educational and political conflicts between stakeholders—such as academics, administrators, instructional designers and university staff— charged with implementing quality measures (Robinson, 2004). Chief among these issues is the conflict between distance learning administrators seeking easy-to-gather measures of course quality and faculty who view these measures
as an intrusion into their responsibility for student learning and growth in courses (Barnett, 1992).

Barnett (1992) has proposed an alternative way of looking at quality generally in higher education that answers some of the above criticisms. He promotes an approach he calls engagement, or “total quality care,” which primarily searches for evidence that an institution is focused on the quality of the student learning experience. The approach is both learner-centered, and focused on continuous improvement, which Barnett defines as “…continuing improvement in the educational processes” (Barnett, 1992, p. 216). Unlike many of the current quality standards approaches, Barnett’s engagement model of quality is less interested in data about institutional performance, and much more interested in information about how individual courses are created and designed. Barnett’s general approach to describing quality is reflected in several frameworks in use in the United States for assessing quality in distance education at the level of course design and creation (MarylandOnline, 2006).

Quality Matters is one approach to assessing quality in Web-supported courses that moves in the direction of developmental, learner-centered conceptions of quality outlined by Barnett. It incorporates principles of peer review of courses by faculty into a framework for the improvement of Web-supported courses (Shattuck, 2007). Institutions using the Quality Matters approach subscribe to the use of both a process and a course design rubric. The process is formal peer review of Web-supported courses by a trained group of faculty reviewers. The rubric is a set of design standards, drawn from research literature on effective design of distance learning courses. Currently, more than 260
institutional subscribers belong to the Quality Matters consortia. Over 4,000 faculty and staff have completed training as peer reviewers (Quality Matters, 2008).

Although quality standards for Web-supported course design such as Quality Matters have been in existence for years, little research has been done on how standards regarding course creation and design have been implemented at specific institutions, or how they are managed. Barnett suggests that the kinds of management models in place at universities have a great deal to do with the success or failure of quality improvement efforts. Although researchers have connected management models to quality in distance education (Bates, 2000; Thomson & Irele, 2007) little is known about how specific management models for distance education interact with quality efforts. Management issues, generally, are one of the least researched areas in the field of distance education (Moore, 2007).

**Definition of Terms**

The following definitions are terms regarding the quality movement in higher education that I will use throughout this study:

*Distance Education* is the larger term describing the overall professional field within which the study takes place. Distance education can be defined as “…institution-based, formal education where the learning group is separated, and where interactive telecommunications systems are used to connect learners, resources, and instructors” (Simonson, Smaldino, Algright & Zvacek, 2000, p. 28).
Web-Supported Education/Web-Supported Learning is a subset of distance education. The term is used “…to indicate the use of the Internet to enhance and support learning” (Fresen, 2005, p. 9).

Quality For the purpose of this study, I use Jill Freson’s definition of quality as “…continuous improvement in the search for excellence” (Fresen, 2005, p. 1).

Quality Assurance is a widely-used term for the practice of preventing faults from occurring within a process or a system. Within higher education circles, “Quality assurance refers to the systems through which an institution demonstrates that conditions are in place to achieve the standards set in educational programmes” (Robinson, 2004, p. 196).

Quality Management “…refers to initiatives (either internal or external to an organization) which are undertaken in the quest to assure and manage quality” (Fresen, 2005, p. 1).

Course Design is a set of practices in higher education that instructors (and others) use to develop Web-supported courses.

Course Design Team is a group of course designers, usually consisting at minimum of an instructional designer, a technologist, and a project manager, who work with faculty members to create Web-supported courses.

Project Management Model is a management technique using course design teams whose efforts are coordinated by a non-academic project manager. Course design teams, along with author-editor models, are the two most common structures for producing Web-supported courses in North America (Moore & Kearsley, 2005).
Administrators, in this study, are generally university staff in colleges and universities with responsibilities over programs of distance education.

Faculty, in this study, are college and university professors who are actively involved in creating Web-supported courses.

Higher Education, in this study, refers to programs of tertiary education in North America and elsewhere.

Standards, Benchmarks, and Indicators refer to ways of measuring quality in distance education programs and courses (Frydenberg, 2002).

**Study Description**

In this study I explored the interaction between quality standards, faculty, staff, and managers by conducting an instrumental case study of one institution’s efforts to implement quality at the level of course creation and design. Big Town Community College’s Department of Distance Education and Instructional Support currently uses a widely available set of course design standards to assess and improve quality in its offerings of online courses. The course design standards, in the form of a rubric, are made available by an organization called Quality Matters (MarylandOnline, 2006). With 5,000 students currently taking at least one course at a distance, Big Town’s distance education program is one of the largest in Ohio. It uses a well-defined project management model to create and manage course development.

As a large community college in Ohio, Big Town is at the nexus of the movement for quality improvement in higher education. Ohio’s 2008 Strategic Plan for Higher Education, published by the Ohio Board of Regents, envisions 230,000 new college
enrollments by the year 2017, the bulk entering the system through community colleges (Ohio Board of Regents, 2008). High quality and public accountability are hallmarks of the plan. This points to the importance of studying how quality improvement for Web-supported education takes place for courses in which thousands of students will enroll.

This study uses a constructivist-interpretive paradigm to explore the process of distance education course design. The study uses a case study strategy of inquiry (Stake, 1995) informed by Cultural Historical Activity Theory (CHAT) (Engeström, 1996) and constructivist grounded theory (Charmaz, 2000). The methods of collection and analysis of data emphasize interviewing, observing, and the collection of relevant artifacts, documents, and records (Denzin and Lincoln, 2000).

The methods Engeström uses in his research on workplaces are typical of CHAT research generally (Leont’ev, 1978; Lompscher, 2006). The methods range from interpretive observation to critical interpretive observation. Subjective interviews are a key tool for explaining the perspective of workers in workplaces. Engeström uses conversation analysis and discourse analysis of videotaped recordings of workgroups in action as an important source of data about workplace activity. He then codes this data, using interpretive and critical approaches to the coding, to identify and examine disturbances within the work environment. Engeström further analyzes these disturbances in the data to find contradictions within the workplace, sometime related to rapid structural change within the industry under observation. By analyzing these contradictions and comparing them to sociohistoric patterns within the industry, Engeström develops theories of how innovation and change take place at work.
This research uses an instrumental case study of Web-supported course design at Big Town Community College, an institution in southwestern Ohio enrolling 22,000 full-time students. Big Town has a rich history in distance education, maintaining an active distance learning program since 1979. This qualitative study used an interpretive perspective on the topic of quality in distance education. The study gathered data using structured and semi-structured interviews with distance education design team members and administrators at a single institution. The study gathered documents at distance learning offices and continuing education offices at the site. I also gathered electronic and paper work samples of the online course as it develops, as well as any previous versions of the course.

I relied on constructivist grounded theory in this study in a limited way to guide my methods for data collection and analysis. I gathered a large body of data over six months, and used thick description in my observation process – both recommended to me by constructivist grounded theory (Charmaz, 2000). My use of purposive sampling in the research is also a hallmark of grounded theory (Charmaz, 2000). I initially analyzed the research data using emergent coding, to avoid relying on a priori categories (Charmaz, 2000). As I moved toward more conceptual coding of the data, I drew on Engeström’s theory of expansive learning, using codes developed from cycles of expansive learning in previous activity theory studies (Engeström et al, 1999).

My analysis of the data also drew on grounded theory’s constant comparative model, which emphasizes the following strategies (Charmaz, 2000, p. 515):

- comparing different people;
- comparing data from the same individuals with themselves at different points;
• comparing incident with incident;
• comparing data with category;
• comparing a category with other categories.

I used database management software created by the Center for History and New Media at George Mason University (Zotero) to carry out the constant comparison strategy. By doing searches using keywords, I collected and organized codes and transcripts, searched them for thematic patterns, and conducted all the comparisons described above.

In this study, I found that the College’s use of a quality rubric for the design of Web-supported courses helped the stakeholders in the process agree upon a common goal. In activity theory’s terms, the quality rubric helped stakeholders create a shared object of activity. Engeström describes the search for a shared object of activity by co-workers as the primary learning achievement of learners in the workplace (Engeström, 1987).

The study also found that the management model in place in the distance learning department played an important role in the creation of a shared object for the design work. By mandating the use of the Quality Matters standards for Web-supported course design, managers positioned quality—and a quality rubric—at the center of course design activity at the College. However, this implementation of the Quality Matters process by management also created contradictions for faculty and staff around what kinds of course formats could be considered to be quality Web-supported course designs.

In conducting the study, I also found that the management model in use at Big Town Community College was itself in a state of flux. As technologies changed and
workloads increased, the distance learning department’s use of course design teams and project management strategies was pushed to its limits. The case study suggests that current trends in the design of Web-supported courses may require dramatic changes in the management models used to develop them.

**Research Questions**

My work addresses the following research question: To what extent, and in what ways, does the use of the Quality Matters course design rubric support and hinder faculty and staff in the design of a Web-supported course? Related to this question are secondary research questions that examine the issues of management and quality:

2) How does the project management model used at Big Town support and hinder the implementation of the Quality Matters rubric?

3) How do the perspectives of faculty, course designers, and administrators differ about the project management model in relation to the implementation of the Quality Matters rubric?

4) How does the Quality Matters rubric lead to the development of a quality product, as defined by faculty, course designers, administrators, and students?

**Theoretical Frame**

This study draws on two theories of learning and social relations in its analysis of quality in Web-supported education: Expansive Learning Theory, also referred to as a cyclic model of learner actions (Engeström, 1999), and Cultural Historical Activity Theory, or CHAT (Leont’ev, 1978; Lompscher, 2006). The conceptual model for the
research uses the cyclic model of learner actions—with the framework of activity theory—to explore the functioning of course design teams as they develop Web-supported instruction.

The third generation of activity theory is sometimes credited to Yrjö Engeström of Finland, who broadened the concept of activity and began applying CHAT to new contexts. Engeström stressed the mediation of human activities by signs, and also renewed interest in collective activity as both a system and an object of transformation (Lompscher, 2006). Engeström focused his research on adult learning in a variety of workplaces.

CHAT theory is well suited to the study of Web-supported course design and its stakeholders. Interest in the views of learners and users of technology demands new ways of learning about their subjective views and understanding their activities in real-world contexts. CHAT methods address these needs to understand learners in depth. CHAT theory also influences current approaches to the design of instruction. A central tenant of these approaches is to view learners within complex environments that connect them to other learners, tools, and mediating artifacts (Nardi & O’Day, 1999).

CHAT theory is also appropriate to the study of conceptions of quality within a workplace. Because of its emphasis on the components of an entire system of activity—its subjects, object, mediating tools, rules, community, and division of labor—it reflects the full complexity of work activities that use sophisticated tools and strive toward nuanced human outcomes. CHAT studies have focused on conceptions of quality before: in high technology manufacturing (Engeström, 2008), in health care delivery (Engeström,
2008), in law (Engeström, 2008), and in computer systems design (Bodker & Gronboek, 1996).

I also use grounded constructivist theory in a limited way in the analysis of data to locate the research within a constructivist framework. Constructivist grounded theory is useful for this study and its use of activity theory because it offers some specific strategies for applying activity theory to a case study. Charmaz summarizes these strategies below (Charmaz, 2000, p. 511):

- Simultaneous collection and analysis of data;
- A two-step data coding process;
- Comparative methods;
- Memo writing aimed at the construction of conceptual analysis;
- Intersection of the theoretical framework.

**Significance of Study**

This study is significant primarily to the types of stakeholders in Web-supported education that the study engages: university administrators, faculty members, instructional designers, technologists, and students. It is important to these groups in two ways. First, for institutions in North America that are using quality improvement approaches in their development of Web-supported courses, this study of one institution’s implementation of the Quality Matters approach can lend a wider perspective to their effort. Secondly, for administrators, staff, and faculty who are wrestling with the difficult issues of how to manage Web-supported course design and development at their colleges, this research details one institution’s approach. A rich, naturalistic case study such as this
can increase readers’ understanding of their own contexts and situations (Stake & Trumbull, 1982).

Research on conceptions of quality by university faculty and staff—in distance education and in higher education as a whole—is infrequent in the literature. One researcher of higher education quality movements in Europe suggested that, “This richness, arguably, has been overlooked by researchers during the decade of the ‘quality revolution’” (Newton, 2000, p. 154). This study contributes to that conversation about quality and quality improvement by faculty and staff. In particular, it points to some of the contradictions experienced by faculty and staff as they use quality standards—in this case, those developed by the Quality Matters organization—to design a Web-supported course. One contradiction emerges around the way in which this institution implements the Quality Matters design standards— as rules to be followed rather than guidelines to be used to begin a conversation about quality. The implications of the way in which the standards are implemented are far reaching for faculty and staff at Big Town. They also have implications for the Quality Matters project, which considers itself to be more about conversations and processes for quality improvement—such as peer review—than about rules for course design.

Issues surrounding the management of Web-supported course design are another area where little research has been done. British researchers of quality movements in higher education Ronald Barnett and Hilary Perraton urge academics to resist divorcing the discussion of quality from management and organizational issues (Barnett, 1992; Perraton, 2004). This study concentrates on the way in which the design and production of Web-supported courses is currently organized and managed at one institution, and how
staff are modifying that approach to adapt to rapidly-changing circumstances in distance learning as a whole. It finds that, as Web-supported course design and development work becomes more fluid and decentralized—and as the demand for the number of courses developed per year increases—management models based on a systems view of course production, which emphasize the use of teams and processes to control production, may be unable to keep up. The Quality Matters approach, with its emphasis on peer review of courses by colleagues as a path to quality improvement, suggests new strategies for organizing and managing Web-supported course design at universities. These strategies may be helpful to faculty, staff, and administrators at Big Town as they plan for next year’s demands for course development. They may also have applications to other campuses that use the Quality Matters approach, or are considering it for future use.

On a broader level, this study, with its use of activity theory, helps faculty and staff at other institutions understand the tradeoffs involved in approaching the quality discussion with a “scorecard” approach that emphasizes quantitative measurement. As I have said earlier, some observers of the quality movement warn of the risks in placing too much emphasis on easy-to-gather quantitative data (Christie and Stehlik, 1997; Robinson, 2004). By contrast, studies such as this using activity theory have a different focus, putting emphasis on human agency in the workplace, and on the differences between humans and machines (Nardi & O’Day, 1995).

**Limitations and Delimitations of Study**

This study is limited in several ways. There are restrictions on the scope of the study, as well as on its generalizability to other institutions and contexts.
This study does not address the following:

- The research does not examine distance learning courses and modes other than Web-supported courses. For example, it does not address hybrid or mixed-mode courses in which instruction takes place both online and in face-to-face classrooms. Nor does the study address instruction delivered by technologies such as videoconferencing.

- The research does not address quality assurance standards and benchmarks designed to assess the quality of entire distance learning programs. It is focused, instead, at the level of design of individual courses.

This study is an instrumental case study of the design of Web-supported instruction at a single institution in the Midwest. The goal of conducting an instrumental case study is to particularize about the subject under examination, rather than to generalize (Stake, 2003). Generalization occurs when the reader compares the study to other contexts the reader is familiar with. Hence, this study represents the state of affairs in Web-supported education with regard to quality at a single institution: Big Town Community College.

The chapters of the study are laid out in the following way: Chapter 2 presents a literature review of conceptions of quality, course design, and management of Web-supported education; Chapter 3 reviews the conceptual framework of the study; Chapter 4 presents the methods used in the study; Chapter 5 and Chapter 6 analyze the data collected; and Chapter 7 presents conclusions and implications of the study for targeted audiences.
Overview of the Chapter

The discussion of the meaning of quality with regard to distance education in higher education has interested researchers for many years. The research literature is connected to quality movements in business and industry, to quality movements in higher education, and to the history of distance education efforts worldwide. This review examines conceptions of quality and the quality assurance movement in the United States, and then examines how it is related to the literature of course design.

Focusing on the four research questions in the study, the review then takes up the research relating quality to the management of Web-supported education, focusing on the implementation of quality rubrics through the use of project management approaches, a common model of management at colleges and universities with large distance education programs.

Literature Sources

The literature of distance education is extensive, since it cuts across many fields: educational technology, instructional design, and information design, among others. I rely
on Mehlenbacher’s description of eight relevant categories of literature in distance
teaching and learning: distance teaching and learning; distance learning and eLearning;
educational, instructional, and communication technology; teaching and learning
sciences; communication and information design; human-computer interaction and
ergonomics; training, adult education, and the workplace; and two content categories—
distance education developments in the humanities and social sciences, and developments
in science, technology, engineering, and mathematics (Mehlenbacher, 2007). I chose to
limit the scope of the search further by restricting the content area investigation to the
areas of the courses developed in this case study, which include business, business
management, and health information management. Additionally, since this study is
focused on distance education approaches in higher education, I narrowed the scan of the
training and adult education literature to that concerned with college teaching.

The literature review includes nearly two hundred peer-reviewed journals.
Because distance education is a global enterprise, many of the journals are international,
with significant representation from Great Britain, Canada, and Australia, all well-
recognized distance education pioneers.

I typically used the search terms, “distance education” and “quality,” or
“eLearning” and “quality” when performing electronic searches in academic libraries and
in multi-library databases such as OhioLink.

Figure 1 illustrates three broad knowledge domain categories I will use in the rest
of this chapter: Conceptions of quality, course design, and management of Web-
supported education. The area in which these domains overlap forms the research
problem space for this study: Conceptions of quality in course design for the management of Web-supported education.

Conceptions of Quality

Course Design

Management of Web-Supported Education

Figure 1.1 Knowledge domains in the study

**Conceptions of Quality**

Quality as ‘excellence or goodness’ was the definition preferred by philosophers. ‘Fitness for purpose,’ is the definition preferred by business people. It is, incidentally, in the world of business that both the definition ‘fitness for purpose’ and the quality assurance movement has its origins

Christie & Stehlik, 2007, p. 259
As the above quote makes clear, quality as a concept rests in the eyes of the beholder. Among the principal stakeholders in higher education and distance education—which Robinson lists as the state, educational institutes and providers, the market, learners, employers and professional associations (Robinson, 2004, p. 182)—there are a variety of conceptions of quality. Underlying these, as Barnett maintains, are an equal variety of conceptions of the meaning of higher education (Barnett, 1992). The two concepts are interlinked, and I will try in this review to clarify the assumptions about higher education being made by various conceptions of quality.

Christie and Stehlik’s comment draws attention to a major debate in the literature on quality: the relevance or irrelevance of quality concepts developed by business and industry to the realm of higher education. Fresen (2005) refers to this discussion as the “industry-education dilemma” (p.30). Other authors talk about “commercial conceptions of quality” (Barnett, 1992, p. 15) or “the intrinsic rather than more utility value of universities” (Noble, 2001, p. 5).

Generally, researchers place the quality discussion about distance education in the United States within the context of the quality assurance movement in higher education. Bernadette Robinson, a British distance education research, defines quality assurance as “…the systems through which an institution demands that conditions are in place to achieve the standards set in educational programmes” (Robinson, 2004, p. 196). Rhoades and Sporn trace U.S. higher education’s model for quality assurance to the private sector, and point out that commonly used approaches such as TQM, or Total Quality Management, and Continuous Organizational Improvement began in the business world (Rhoades & Sporn, 2002). Marchese (1997) confirmed this observation and noted a lag
time between the adoption of quality assurance models in business and industry and their use in higher education. Marchese, a researcher of reform efforts in higher education, claims that quality assurance models “arrive at higher education’s doorstep five years after their trial in business, often just as corporations are discarding them” (Marchese, 1997, p. 7).

A Short History of Quality Assurance in the United States

The quality assurance movement in the United States began in the early twentieth century with the scientific management philosophy of factory production described by Frederick Taylor (Hughes, 1998). Taylor’s goal was to create the best division of labor in industry in order to create maximum output of finished goods. Taylor emphasized research in the workplace to discover the most efficient use of workers. In Taylor’s thinking, according to Canadian higher education researcher James Beaton, “The fundamentals of scientific management included science as a basis for decision making, harmony, cooperation, maximum output and the development of each person to their greatest efficiency and prosperity” (Beaton, 1999, p. 4).

Fifty years later, American statistician and efficiency expert W. Edwards Deming—building on Taylor’s approach of scientific management and hierarchical control of workers—developed Total Quality Management, or TQM, as a more decentralized and flexible quality control model (Beaton, 1999). Total Quality Management, according to Fresen, “…is a holistic management philosophy, which harnesses the efforts of everyone in the organization to achieve continuous improvement and ongoing innovation” (Fresen, 2005, p. 11). Deming’s approach was based on his
work in Japan, after World War II, in rebuilding industry. The Japanese approach to quality, which was highly collaborative and held a fluid definition of quality, is a constant presence in Deming’s work on TQM.

**Quality Assurance in Higher Education**

Marchese claims that Total Quality Management entered U.S. higher education in 1991 (Marchese, 1997). Its influence can be seen in strategic planning and restructuring efforts at universities during this time (Rhoades & Sporn, 2002). Rhoades and Sporn point out that quality assurance practices such as Total Quality Management arrived on U.S. campuses at a time of heightened calls by the public for more accountability in the public sector, and for greater use of private sector models for improvement and efficiency (Rhoades & Sporn, 2002).

There is widespread disagreement in the literature over whether private sector quality practices such as TQM are useful, or relevant, to higher education. The critique of James Beaton (1999), a Canadian sociologist, published in 1991, typifies the belief that business practices are designed to manipulate and control faculties and staff at universities:

> The introduction of Total Quality Management or Quality Assurance into the university will reinforce the hierarchical relations and subordination of labour that exist within the institution. The rhetoric of accountability and quality is often vague and lacks substance. The built in ambiguity is likely designed to create the appearance of a strong movement around a phrase that is empty of meaning. (p. 3)
Other critics, such as Barnett, point out the dangers of using TQM’s mostly quantitative assessment tool—*performance measures*—to evaluate universities. Performance measures, within higher education, can be defined “…as measures that are usually quantitative and that describe an activity of an institution” (Cave, 1996, p. 24). Barnett (1992), a British research of higher education, spells out the hazards of relying on quantitative measures of quality in higher education:

A single-minded use of numerical performance indicators as an approach to quality serves to marginalize conceptions of higher education that are actually focused on the character of the educational process. Paradoxically, then, in higher education, performance indicators act to rule out of court concepts that are concerned with the essence of higher education itself. (p. 21-22)

Barnett, though he disagrees with the practice by university administrators of seeking easy-to-gather quantitative measures of quality, does not dispute the general public’s claim on higher education (Barnett, 2002). In the same vein, Christie and Stehlik acknowledge the public’s need to evaluate the work of higher education when they state that, “External reviews are here to stay” (Christie & Stehlik, 2006, p. 5).

Other researchers see relevance in the use of quality models from business and industry within higher education Jill Fresen, a distance education researcher from South Africa, points to studies that show acceptance of TQM-styled models by universities in Northern Ireland (McAdam & Welsh, 2000) and in South Africa (Fourie, 2000). Fresen, herself, subscribes to the view that quality assurance models such as Total Quality Management can be used successfully in higher education if they are presented to the university community without an overemphasis on controlling behavior (Fresen, 2005).
A second debate surrounding quality assurance in higher education concerns the use of *intrinsic* versus *extrinsic* definitions of quality. Fresen refers to this as the “internal improvement–external accountability” dilemma (Fresen, 2005, p. 33). Barnett refers to this debate as the tension between “dominant approaches” and “neglected approaches” to quality in higher education. He found that the dominant approaches tend to reflect a systems planning, or input/output view of higher education, deriving from an external vantage point, and based on external justifications for higher education. An example of this would be a view that sees higher education as existing to produce qualified manpower (Barnett, 1999). By contrast, Barnett notes neglected approaches to quality tend to view higher education in terms of the educational processes students go through (not inputs and outputs); have a vantage point internal to the higher education process; and rely on justifications that revolve around the intrinsic worth of educational processes (Barnett, 1992). An example of the internal vantage point would see higher education as existing to help students learn to participate in critical conversations within society.

In making these distinctions, Barnett calls attention to the intimate connection between models of quality assurance and their underlying views of the purpose of higher education. These views differ among people, and often, among those who assess quality themselves. Barnett (1992) urges those who espouse quality assurance models in higher education to reflect on their assumptions about the purposes of higher education:

> Talk of quality in higher education is not fully honest. Those who use the language of ‘quality’ do not always make explicit the conception of higher education from which their approach to quality springs. This is readily understandable, for often they have not made their ideas about the purposes of higher education explicit to themselves. Consequently, proposals for quality assurance
and quality improvement tend to become the party lines of the different groups. (p. 28)

I’ve detected a third debate about quality assurance in higher education that grows from the second, internal–external question. The issue is the tension between administrative and faculty views about the ownership of and responsibility for quality. By ownership here, I’m speaking of the agency faculty members feel when they develop a distance education course—or any course, for that matter. The issues of ownership, responsibility, and agency show up in Catherine Schifter’s work at Temple University on faculty perceptions of distance education. She has found that faculty are motivated by intrinsic issues regarding whether or not to participate in distance education efforts. These include factors such as (Schifter, 2000, p. 4):

- Intellectual challenge
- Opportunity to diversify program offerings
- Overall job satisfaction
- Opportunity to improve my teaching
- Greater course flexibility for students
- Personal motivation to use technology
- Ability to reach new audiences that cannot attend classes on campus
- Opportunity for scholarly pursuit
- Opportunity to use personal research as a teaching tool
Schifter found that administrators had quite different views of what motivated faculty to participate in distance education, which were extrinsic rewards such as prestige, additional pay, and advancement toward promotion and tenure. Others (Rockwell, Schauer, Fritz & Marz, 1999; Tabata, 2006) have confirmed the importance of intrinsic motives for faculty in distance education. Tabata’s work indicated that faculty members are intensely concerned with their own perceptions of the quality of distance education efforts, particularly in comparison to face-to-face instruction. Another important issue for faculty in her study was whether participating in distance education was “…compatible with their current work practices” (Tabata, 2006, p. 642).

Studies of faculty resistance to being involved with distance education suggest a concern with loss of ownership and control over course development. These include factors such as reluctance to deal with change (Maguire, 2005); intimidation by the technology (Parisot, 1997); and concerns over job security (Lindner et al., 2002). Concerns about lack of support for using the technology are a widespread disincentive reported by faculty (Berge, 1998; Betts, 1998; Bork, 2001; Chizwar & Williams, 2001; Lee, 2001; Moller & Jones, 2002; Rockwell et al., 1999; Schifter, 2000; Wilson, 1998).

I will argue that the resistances reported by faculty regarding participation in distance education efforts also represent a clash of disciplinary cultures between university faculty and university administrators. These clashes—manifested in faculty concerns over ownership and responsibility for their courses and their teaching—appear in many guises: as struggles over team work versus individual scholarly work (Bates, 2000); over commodified work versus humanized work (Kutti, 1999); and over easy-to-
gather measures of course quality versus more nuanced measures of student learning and growth in courses (Barnett, 1992).

Much research has been done on the unique disciplinary culture of university faculty. Key findings have illustrated the guild-like structures of faculties (Krause, 1996), members’ tendency to work in individual isolation (Damrosch, 1995), and their resistance to being “managed” by others (Barnett, 1992). These tensions between faculty culture and the distance education efforts within universities will have significant implications for all the stakeholders in Web-supported education as a whole.

**Course Design**

The literature treating the design of courses in higher education has two sources: the literature of instructional design, which is large and goes back to at least the 1950s, and the literature of design of face-to-face courses, which is remarkably limited (Fink, 2003).

In this study, I approach the process of distance education course design as a classic *black box*. In systems design theory, a black box serves as a placeholder for an unexplained process, which researchers can attempt to understand by examining its inputs and outputs (Granberg-Radenacher, 2008). My research will approach course design in this way—I don’t really know how it works, but I can observe it functioning “in the wild.” My goal in studying course design will be to move toward transparency. In the words of situated cognition researchers Lave and Wenger, I’ll strive toward making the inner workings of distance education course design available to the learners: “…the black box can be a “glass box” ” (Lave & Wenger, 1991, p. 102).
Quality and Course Design

The design of college courses in the United States has traditionally been the province of professors (Burgan, 2006; Damrosch, 1995). Ironically, researchers have repeatedly concluded that faculty members are ill prepared for this responsibility, usually from a lack of knowledge of learning pedagogy (Diamond, 1998). According to Laurie Richlin, a scholar of higher education, college teachers usually make teaching decisions implicitly and often “on the fly” during face-to-face instruction (Richlin, 2006, p. 4). She points out that, while she feels most academics make good decisions about course design, because the decisions are implicit, they are not available for evaluation or improvement (Richlin, 2006). Richlin makes her case for a structured approach to course design for faculty based on a model of continually improving—or redesigning—courses using peer feedback and reflection.

Calls for improvement in course design have come from several quarters. Teaching excellence and faculty development associations such as the Society for Teaching and Learning in Higher Education (Canada), the Professional and Organizational Development Network in Higher Education, and the International Alliance of Teacher Scholars offer workshops, publications, and encouragement to faculty course designers throughout North America.

In the vein of continuous improvement cultivated by the quality assurance movement, the International Alliance of Teacher Scholars emphasizes peer review and careful redesign of existing courses in a process they call scholarly teaching (Richlin, 2006). Another researcher in the scholarship of teaching, Dee Fink, developed a similar
course design process he calls integrated design. (Fink, 2003). A third scholar, Robert Diamond, promotes an outcomes-based course design approach he calls “learner-centered course design” (Diamond, 1998, p. 3).

All three design models—scholarly teaching, integrated design, and learner-centered design—are similar in their design process to existing course design approaches used by instructional designers. All three follow the well-known contours of “ADDIE,” a generalized problem-solving design process named for its five steps: Analyze, design, develop, implement, and evaluate (Molenda, Pershing & Reigeluth, 1996). The similarity can be seen by reviewing the nine steps of the scholarly teaching process (Richlin, 2006, p. 3):

- Identify Big Questions in Course
- Select Teaching Goals
- Design Learning Objectives
- Consult Literature
- Choose and Use Learning Experiences
- Conduct Systematic Observation and Assessment
- Document Observations
- Analyze Results
- Obtain Peer Evaluation

**Course Design and Instructional Design**

“Teachers are designers”

Researchers of face-to-face course design in higher education have been long been influenced by the work of instructional designers. The widely-espoused approach of starting a classroom course design by identifying learning objectives is the clearest example of that influence (Richlin, 2006).

Developments in the seventy-year history of instructional design have paralleled developments in the theories of learning and knowledge. The field has co-evolved with three main movements in education and psychology: the behaviorist/empiricist view, the cognitive/rationalist view, and the situative/pragmatist-sociohistoric view (Greeno, Resnick & Collins, 1996).

Instructional design practice as we currently identify it began in the United States at the start of World War II when military trainers and psychologists began collaborating on the problem of assessing the skills and knowledge of new recruits (Reiser & Dempsey, 2007). Psychologists and educators such as Robert Gagné, Leslie Briggs, and John Flannagan developed training materials on battlefield topics with the U.S. military’s doctrine of “command and control,” which translates roughly as “an ethos of total control.” (Noble, 1991, p. 33). After the war, these same psychologists continued to research military training techniques, including the development of task analysis methods for deconstructing training topics into their constituent parts (Reiser & Dempsey, 2007). Douglas Noble claims it was during this time period that the term “human engineering” began to be used to refer to military testing and training, perhaps coined by the psychologist R.M. Yerkes (Noble, 1991, p. 52).

Behaviorist psychology, strongly identified with psychologist B.F. Skinner, would stake a claim on instructional design practice in the 1950s with the development of
programmed instruction. In the mid-1950s, researchers introduced a new device, the reading machine developed by psychologist Sidney Pressey, into training by adapting it for the delivery of teaching materials (Noble, 1991). Military requirements for training with uniform, standardized, high-quality instructional materials, developed at low cost and delivered in a minimum amount of time, fit well with Skinner’s theory of operant conditioning and its repeatable design and delivery techniques, which relied on identification of desirable behaviors, their reinforcing stimuli, and schedules of reinforcement to allow “conditioning” or learning to take place (Lappo, 1984).

The human engineering metaphor for designing instruction took on more force in the 1960s with the development of the “systems approach” to training in the military and in university research laboratories. Michael Molenda (1997), quoting Alexander Mood, president of the Operations Research Society of America in 1964, described the systems approach:

It is simply the idea of viewing a problem or situation in its entirety with all its ramifications, with all its interior interactions, with all its exterior connections and with full cognizance of its place in its context. (p. 3)

The system of instruction the approach used retained important characteristics of programmed instruction: specifically, the use of behavioral objectives, a stepwise process of analysis, synthesis, and evaluation of the training situation, and a trial and revision procedure for testing materials (Reiser & Dempsey, 2007).

The cognitive/rationalist view of knowledge and learning began to hold sway with instructional design researchers by the early 1970s. The cognitive/rationalist view of knowledge revolves around understanding concepts and theories, along with cognitive
processes such as solving problems, reasoning, and understanding language (Greeno et al., 1996). Because the cognitive view is interested in understanding as well as behavior, it is inherently a broader view of how people learn.

Impact of Prevailing Instructional Design Theories On Distance Education

The instructional design theories emerging from behaviorist and cognitive/rationalist views of knowledge and learning affected developments in the field of distance education. Distance educators in the 1950s and 1960s conducted their classes primarily through correspondence (Moore, 2007). Theorists such as Charles Wedemeyer at the University of Wisconsin explored the independence of the adult learner, which he compared to the self-direction of students in independent study systems of the time (Anderson, 2007). Researcher Michael Moore at the Pennsylvania State University used Widemeyer’s concept of learner independence as one of three dimensions of his Theory of Transactional Distance, a foundational theory published in 1972. Both Wedemeyer and Moore were influenced by behaviorist instructional design models of the time, which emphasized shaping the environment of individual learners. Not all distance learning theorists of the time shared this individualized view, however. Borje Holmberg, a Swedish theorist, began developing a theory of distance learning in 1960 that positioned learners in a dialogic relationship with teachers – what he called a “simulated conversation” (Holmberg, 2007, p. 70). Holmberg, too, pictured the distance learner as a solitary learner. However, he emphasized reaching out to learners in an empathic way with course materials and conversational communications to create a feeling of belonging
on the part of the learner. Holmberg anticipated the importance of research on learning communities that would emerge many years later.

The systems approach to instructional design that flourished in the 1960s and 1970s found strong adherents in the research of Charles Wedemeyer, Otto Peters, and Michael Moore. Wedemeyer went on to combine elements of his independent study model with applications of media technologies produced by specialists to create some of the earliest multimedia distance education courses (Black, 2007). His approach, which he called the Articulated Instructional Media Project (AIM), posited that the resulting quality of the course offering would exceed what was possible for individuals to create working by themselves, or what was possible to create using any one medium alone. Wedemeyer’s systems approach inspired the design of Britain’s seminal distance learning project, the Open University. Peters, a German researcher, drew parallels between the growth and development of distance education systems internationally and the development of world industrialization. Like Wedemeyer, Peters was interested in applying communications technologies in a deliberate fashion to teaching at a distance, and saw the new possibilities for learner access to the academy that these techniques promised. More than previous researchers, Peters saw the potential to use industrial means of mass production of course materials to create economies of scale in distance education, thereby increasing its influence in a modernizing society. Peters foresaw that the development of distance education course by teams of technicians, using the systems model of meeting learning goals and objectives, profoundly changed the role of faculty members, bringing the role of the instructional designer into new prominence. He also
perceived there would be a global “market” for the products of the distance learning enterprise (Peters, 2007).

Moore’s Theory of Transactional Distance attempted to be an over-arching theory of the pedagogy of distance education, adaptable to every kind of content and delivery system. The systems approach is apparent in his theory, as it embraces every aspect of the technology system used to deliver the instruction, as well as the teachers and learners themselves. Moore defines three dimensions of the distance education experience—structure, dialogue, and transactional distance, which he defines as the psychological and communications gap that results when the teaching and learning acts are separated (Stein, Wanstreet, Calvin, Overtoom & Wheaton, 2005)—and theorizes about their changing relationships within different course formats and contexts. Although designed to address interactive communications between multiple learners and an instructor, the theory predates rapid Internet communications and retains a point-to-point, single teacher to single learner perspective (D. Stein, personal communication, January 17, 2008).

**Critiques of Instructional Design Theory in the 1980s**

The constructivist critique of instructional design in the 1980s had several concerns. It worried about the authority wielded by instructional designers to define knowledge and then “transmit” it to learners (Jonassen, 1991, p. 7). Constructivists felt that behaviorist approaches to design were reductionist, in that they oversimplified learning tasks and in so doing distorted the mental processes required for learning. However, constructivism posed fundamental epistemic questions about where knowledge
is located—in individual minds, in environments, in communities—that stirred a profound reaction in the instructional design community.

Jonassen and Molenda both identify researchers who aligned themselves with different parts of the constructivist agenda. Radical constructivists, characterized by the position of Ernst von Glasersfeld, took a phenomenological view of reality, which frames reality as dependent on the perception of learners. Moderate constructivists, identified with David Perkins, Rand Spiro, and groups like the Cognition and Technology Research Group at Vanderbilt University, viewed reality as more aligned with the cognitivist’s view of a representation in the learner’s mind (Molenda et al., 1996). The debates in the instructional design community over constructivism carried on through the entire decade of the 1990s.

Responses of Theorists and Practitioners to 1980s Critiques

The responses by instructional designers to the critics of the 1980s resulted in three main trends:

• A rise of interest in “information ecology” styled approaches to instructional design, with their associated situative/pragmatist/sociohistoric point of view;

• A more complex view of learners, and of users of technology;

• Modifications of behaviorist and cognitive instructional design taxonomies to reflect constructivist’ concerns.

Anthropologist Bonnie Nardi defines an information ecology as “…a system of people, practices, values, and technologies in a particular local environment” (Nardi & O’Day, 1999, p. 49). As a metaphor, her term is descriptive of a learning community
with rich interconnections between people, their technologies, and their environment. Unlike the engineering model of a system used by instructional designers in the past, the information ecology model is a more dynamic environment. In Nardi’s words, “The social and technical aspects of an environment coevolve” (Nardi & O’Day, 1999, p. 53).

Nardi’s view is rooted in a situative/pragmatist/sociohistoric perspective that grew popular as a response to 1980s critiques of instructional design (Greeno et al., 1996). To quote Greeno, “the situative/pragmatist-sociohistoric perspective views knowledge as distributed among people and their environments, including the object, artifacts, tools, books, and the communities of which they are a part” (Greeno et al., 1996, p. 16). As Greeno makes clear, this view accommodates the rich interconnectedness suggested by the information ecology metaphor. Three research traditions contribute to this viewpoint: ethnography, ecological psychology, and situation theory, a branch of philosophy that studies meaning and action.

Constructivist influences on instructional designers also influenced the development of distance education courses after the 1980s. In particular, the Community of Inquiry theory of Garrison, Archer, and Anderson uses constructivist beliefs to support text-based, asynchronous use of written communication for online learning. Their theory identifies three elements of such online communication – social presence, cognitive presence, and teaching present – to analyze communication in online courses. Social presence is defined as the ability of learners to project themselves, socially and emotionally, within a community of inquiry (Garrison & Archer, 2007). Cognitive presence is defined as “the extent to which learners are able to construct and confirm meaning through sustained reflection and discourse in a critical community of inquiry”
Teaching presence is defined as “the design, facilitation, and direction of cognitive and social processes for the purpose of realizing personally meaningful and educationally worthwhile learning outcomes” (Anderson, et al., 2001, p 80).

The theory’s emphasis on collaboration and community building within a distance education class is driven by social constructivism’s emphasis on culturally mediated learning. The emphasis comes through in Garrison’s (2007, p 82) list of pedagogical principles for getting the most out of the model:

- Establish a climate that will create a community of inquiry.
- Establish critical reflection and discourse that will support systematic inquiry.
- Sustain community through expression of group cohesion.
- Encourage and support the progression of inquiry through to resolution.
- Evolve collaborative relationships where students are supported in assuming increasing responsibility for their learning.
- Ensure that there is resolution and metacognitive development.

The Community of Inquiry theory is a marked departure from earlier theories of distance education that emphasized independent study by individuals. It also reflects Holmberg’s early theory of empathic learning and teaching-learning conversations (Holmberg, 2007).

Instructional designers using these new constructivist approaches to design instruction go about planning, designing, implementing, and evaluating instruction differently from their peers who use behaviorist or cognitive design approaches. In the
planning and analysis phases, these approaches avoid traditional hierarchical task analysis, in favor of studying how successful activities are structured (Greeno, Resnick & Collins, 1996). Because these approaches emphasize activity in authentic contexts, instructional designers using them often attempt to get students to participate in learning communities in order to strengthen their abilities to perform successfully in context. Design goals around motivation and engagement revolve around students achieving “engaged participation,” in which the students’ interpersonal relationships and their evolving identities within the community grow stronger and more satisfying (Greeno et al., 1996, p. 26).

Constructivist designs often take the form of learning environments that encourage social practices of constructing understanding. Typical activities in these environments, according to Greeno, include, “formulating and evaluating questions, problems, hypotheses, conjectures and explanations, and proposing and evaluating evidence, examples, and arguments” (Greeno et al., 1996, p. 31).

Evaluating and assessing students within a constructivist context is more concerned with their ability to participate in a community of inquiry. Ways of assessing successful participation, such as evaluation of project or portfolios, become more important in these contexts. The constructivist view also recommends that students, themselves, be involved in the creation of standards and criteria for learning success, as full members of the learning community.

Constructivist models of instructional design are not without criticisms in the literature. Shortcomings may include learner difficulty with problem-solving in constructivist learning environments due to a lack of guidance and learner support (Chen,
2001), as well as a general lack of commitment on the part of constructivist designers to making social change with their designs (Barab, Dodge, Thomas, Jackson & Tuzun, 2007).

**Programmatic Standards and Benchmarks**

As with other design professions, standards inform and shape our work. The architect, for example, is guided by building codes, customer budget, and aesthetics. The teacher as designer is similarly constrained.


We cannot find a rational, reliable resting place in the old way by falling back on ideas of routine, standards, and universal reliability - we are in the process of discovering that it's local all the way down...

Star, 1996, p. 312

As can be seen in the two quotes above, standards and benchmarks in course design are contested territory. Wiggins and McTighe, the authors of a course design book widely popular with teachers, approach standards as a framework that helps educators set priorities for their courses, in terms of learning goals and outcomes. Star meanwhile, an activity theorist and social scientist, reflects discomfort with what standards are and what they may miss in the teaching and learning experience. She agrees with Duning, who points out, “We become what we measure” (Duning et al., 1993, p. 197). As Thompson and Irele, distance education researchers, point out, the question that logically proceeds from this is, “What do we want to become?” (Thompson & Irele, 2007, p. 582). I will discuss the use of standards in two different areas—first, in the area of course design generally; then, specifically in the area of distance education.
In the literature surrounding the design of face-to-face courses in higher education, one attempt to create standards is cited again and again. That is Chickering and Gamson’s “Seven Principles for Good Practice in Undergraduate Education” (Chickering & Gamson, 1987). The authors, both board members of the American Association for Higher Education in the 1980s, were longtime promoters of efforts by faculty and students to improve teaching and learning on campuses in the United States (Fresen, 2003).

A synopsis of the seven principles states that good practice in undergraduate education (Chickering & Gamson, 1987, p 1):

- Encourages student-faculty contact.
- Encourages cooperation among students.
- Encourages active learning.
- Gives prompt feedback.
- Emphasizes time on task.
- Communicates high expectations.
- Respects diverse talents and ways of learning.

The literature of the scholarship of teaching widely embraces the seven principles (Diamond, 1998; Fink, 2003; Richlin, 2006), as does much distance education literature (Picciano et al., 2007; Sherry, 2003; Thompson & Irele, 2007). The authors developed a version of the seven principles addressed to the use of technology in 1996 (Chickering & Ehrmann, 1996).
Standards for distance education course design in North America, to the extent they exist, mirror the best practices found in the assessment criteria of accrediting bodies. All eight regional accrediting bodies in the United States have been influenced by Chickering and Gamson’s work and, to varying extents, reflect their best practices (Sherry, 2003).

Distance education has employed standards and benchmarks—derived from lists of best practices—for many years. A major international study of distance education practice authored in Australia, “Quality on the Line,” found that most institutions it polled were concerned about quality in their distance education programs and were incorporating guidelines and standards into them (Thompson & Irele, 2007). In North America, activities related to distance education standards and benchmarks were pronounced among distance education professional associations. Five prominent sets of standards and their authoring organizations include (Thompson & Irele, 2007, p. 429-430):

- An Emerging Set of Guiding Principles and Practices for the Design and Development of Distance Education (The Pennsylvania State University, 1998)
- ADEC Guiding Principles for Distance Teaching and Learning (American Distance Education Consortium, 2003)
- Elements of Quality: The Sloan-C Framework (Bourne & Moore, 2003)
- Best Practice for Electronically Offered Academic Degree and Certificate Programs (Western Cooperative for Educational Telecommunications, 1999)
Accrediting organizations in North America were equally active in the 1990s in formulating quality guidelines. Because accreditation is the principal quality control mechanism used in North American higher education, accrediting organizations involvement in setting standards for distance education was a natural outgrowth (Robinson, 2004). An example of quality standards generated by accrediting institutions is the set of standards created by the Council of Regional Accrediting Commissions in 2000, under the auspices of the Western Cooperative for Educational Telecommunications (Lezberg, 2007). These standards were particularly significant because they represented an agreement on standards of quality on the part of all eight regional accrediting associations in the United States.

Christie and Stehlik warn about standards of quality in higher education wherein, “Too often, despite the stated policies, it is quantity not quality that is measured” (Christie & Stehlik, 2007, p. 261). British quality researchers warn about “…not allowing our universities to become online qualification ‘factories’ in order to achieve certain specified university targets” (Fallows & Bhanot, 2005, p. 29) Bernadette Robinson, another British researcher, makes the observation that debates about standards can mask deeper tensions in universities, where “…descriptions of quality-assurance systems and mechanisms give little indication of the contentious political and educational issues often involved in establishing and operating them” (Robinson, 2004, p. 203).

Jill Fresen of South Africa notes a possible turning point in the evaluation of quality in distance education, from the “inputs/outputs” model of quality originated by Taylor toward a more nuanced assessment. In her words, “There has been a perceptible shift from a focus on regulation and control, to improvement and self-evaluation”
(Fresen, 2006, p. 33). This turning point is the subject of the next section on course
design and rubrics.

**Course Design Rubrics and Best Practices**

The debate about quality standards as “inputs and outputs” versus quality as a
more complex, context-dependent notion is played out in the literature about course
design quality rubrics and best practices. Some course design rubrics are quite similar to
those used to evaluate programs and institutions—and are summative and quantitative in
nature—while others seem more centered on the perspective of a faculty member creating
a course, and are formative—and quite reflective—in nature.

Fresen reports an early course design rubric as initiated by the developers of
WebCT, an early *course management system*. Simonson defines course management
systems as “…software systems designed to assist in the management of educational
courses for students, especially by helping teachers and learners with course
administration” (Simonson, 2007, p. vii). The Web CT Exemplary Course Project was an
annual award for effective online courses given at an annual conference. The scoring
rubric, developed by distance education researchers Rena Palloff and Keith Pratt, used
two categories of criteria for quality in course design: Academic rigour and content
robustness. They defined academic rigor as, “The degree to which a web-enhanced or
asynchronous online course causes students to become immersed in the course content
through the application of higher level learning objectives” (Fresen, 2004, p. 48). Content
robustness was: “The breadth and depth of the content included in or part of a web-
enhanced or asynchronous course and the extent to which students are required to interact with that content and with each other” (Fresen, 2004, p. 48).

**Formative Uses of Rubrics**

Both the WebCT rubric, and a subsequent one developed for analyzing technology in courses by The Flashlight Project, supported by the Annenberg Foundation and the Corporation for Public Broadcasting in 1995, drew once again on Chickering and Gamson’s work on the seven principles. Two things were significant in its application to design rubrics. First, this use began to take a more formative view of the distance education course design process than previous quality projects. Secondly, and related to the first point, these rubrics began to pay attention to other key stakeholders in the course design process—particularly university faculty and staff—and their influence on course quality. Chickering was very interested in the roles of faculty and staff in creating quality course designs, and published inventories of good practices specifically targeted toward faculties and staffs (Chickering, 1991).

These early rubrics for distance education course design were widely discussed at a series of workshops sponsored by the Annenberg Foundation and the Corporation for Public Broadcasting at the Wingspread Conference Center in 1997. The participants in these workshops began elaborating the pedagogical strategies that could be used to develop courses at a distance (Wilkinson, Wilkinson & Guillaume, 2001). Their work began to lay the groundwork for the development of a much more detailed design rubric called Quality Matters.
The Quality Matters Rubric

The Quality Matters course design rubric, the focus of this study, was first published in 2005 by MarylandOnline, the distance learning arm of the University of Maryland College Park. (MarylandOnline, 2006). It subsequently spun off from the university to become a freestanding, non-profit organization. It consists of a quality rubric listing forty standards within eight thematic areas of course design best practice. Its matrix of best practices generally agrees with the quality criteria for distance education published by the North Central Association and The Council for Higher Education Accreditation (MarylandOnline, 2006). Such alignments are a significant argument for the credibility of the Quality Matters approach, since accrediting institutions are traditionally important arbiters of distance education quality in colleges and universities in North America (Fresen, 2006).

From the outset, the organizers of Quality Matters set out to develop a peer review process for distance education courses that was oriented toward faculty and course designers. Quality Matters, as both a rubric and a peer-review process, fits the predictions of Fresen and others that the quality standards movement in distance education would reach a turning point and become more committed to improvement and self-evaluation (Fresen, 2006). Adult education researcher Phillip Tovey (1992) foresaw this shift in approach to quality in distance education as early as 1992, when he described it as a shifting of focus away from regional and national standards and toward quality within a specific context:

…it is perhaps appropriate to regard this initial phase as drawing to a close, to be overlapped and eventually
replaced by a second phase, which addressed just what the concept of quality can mean in particular contexts, on what basis it should be established, and how this relates to what exists in the ongoing situation. (p. 125)

As Tovey suggests, this study will go on to research quality in Web-supported education within a particular context. Management and production processes are an essential part of the context, and they are the subject of the next section of this chapter.

**Management of Web-Supported Education**

The primary research question in this study asks: To what extent, and in what ways, does the use of the Quality Matters course design rubric support and hinder faculty and staff in the design of a Web-supported course? To explore this question, I found it necessary to research the literature on Web-supported education and how it is managed currently by colleges and universities in North America. The management literature forms the bulk of this section, because a quality rubric such as Quality Matters is implemented through the use of a management model.

**Project Management Model in Web-Supported Education**

The second research question in this study asks: How does the project management model used at Big Town support and hinder the implementation of the Quality Matters rubric? This section investigates literature that describes the use of project management models in Web-supported education and how they can support or hinder the design recommendations coming from course design rubrics such as Quality Matters.
Project management and the project management model—using course design teams—is an influential management structure used in course design. Moore and Kearsley point to the significance of the model by noting that, along with the author-editor model, it is the most widely used approach in North America to organizing the work of developing a course for Web-supported education (Moore & Kearsley, 2005).

Project management, as a model and as a field of inquiry, is located generally between the study of technology and the study of business administration (Packendorff, 1995). A definition of project management begins with a definition of a project, itself. Johan Packendorff, a Scandinavian researcher of project management, defines a project this way (Packendorff, 1995, p. 320):

- a unique, once-in-a lifetime task;
- with a predetermined date of delivery;
- being subjected to one or several performance goals (such as resource usage or quality);
- consisting of a number of complex and/or interdependent activities.

The definition of project management, used by the Project Management Institute (1987), is the following:

Project management is the art of direction and coordinating human and material resources throughout the life of a project by using modern management techniques to achieve predetermined objectives of scope, cost, time, quality and participant satisfaction. (p. 4-1)

Two views of the historical development of project management in North America dominate the literature. One view traces its origins to the 1950s and to
development of systems engineering approaches to complex technology projects (Hughes, 1998; Packendorff, 1995; Wierschem & Johnston, 2005). The Manhattan Project to construct the atomic bomb, the SAGE project that built the United States nuclear missile radar defenses, and the Atlas project, which developed ICBM’s, or Intercontinental Ballistic Missiles, are projects frequently cited in the historical literature as the first uses of project management techniques. Another view places the origin of project management in the social sciences—particularly organization theory—as a way of observing and thinking about corporate activities (Söderlund, 2004). Generally, I would categorize the first view of project activity as deterministic, while the second view sees project activity as contingent and context-dependent. Indeed, Söderlund, a Swedish researcher, calls for developing more medium-range theories of project management viewed as a situated cultural practice (Söderlund, 2004).

Although quite a few researchers (Packendorff, 1995; Shenhar & Dvir, 1996; Söderlund, 2004) argue that project management as a field has a shortage of developed theories, much research traditionally focused on why projects succeed or fail—known as critical success factor thinking (Pinto & Prescott, 1990). Typically research into the success and failure of projects has defined success in instrumental terms of cost, time spent, and project specifications met (Turner, 1998). Those calling for broader theories, such as Söderlund, argue for a much broader view of success and failure for projects, which includes the social nature of project teams and the uniqueness of each projects’ context (Söderlund, 2004).

This study responds to these calls for a situated approach to studying project management by putting course design projects within a broader cultural context.
Particularly through the use of activity theory as a lens, I will show how course design projects connect with tools such as quality design rubrics, rules and societal expectations, and the wider community beyond an institution’s walls. This connection is not a static picture, but a dynamic one of shifting strategies and outcomes for stakeholders.

For the project management model to succeed or fail to support design recommendations from a rubric such as Quality Matters, successful project management must lead to the adoption of the rubric’s design criteria. This suggests we examine the criteria for successful project management: for example, what makes for an effective project management team?

Farr-Wharton studied a variety of multimedia development projects to examine how the choice of individuals for project teams leads to successful projects. Multimedia project development strategies mirror the general project management approach. He found that three factors related to an individual’s contribution to a project team—capacity, competency, and capability—contributed to the project’s best outcomes. The study used the common, through limited, definitions of project success that revolve around cost, time, and delivery specifications. Farr-Wharton found three critical factors for the success of projects (Farr-Wharton, 2003, p. 276):

- Organizational leadership, that is, higher management above the project manager level, must be engaged with the project and have a good network of industry contacts to call upon to help the project when needed;
- The project manager must be knowledgeable about the technology involved and have relevant technical skills for that technology. The project manager must also have an extensive professional network to call upon when needed;
• The team must have worked previously on similar projects, and have comfortable working relationships with each other.

In addition, the project members’ ability to create a creative climate was important. Farr-Wharton defined creative climate as the general ability to create appropriate organizational structure, polices, procedures, and strategies (Farr-Wharton, 2003, p. 276).

Other authors and studies (Murphy, 1994; Packendorff, 1995; Thomas & Mengel, 2008) have confirmed the importance of these general conditions for project management. These conditions are all process-oriented; they connect certain kinds of interaction between team members, certain kinds of project team environments with project success. For successful project teams to be effective in working with a design rubric such as Quality Matters, the adoption of the rubric’s recommendations would have to be influenced by factors such as a creative working climate, well-connected team leadership, and experience teams used to creating Web-supported courses.

Is there evidence in the literature that successful project management will lead to successful use of design rubrics for quality? The general structure of project management revolves around definitions of projects that include performance goals such as quality (Packendorff, 1995). This suggests that project management as a process is conducive to incorporating certain kinds of quality-oriented design goals.

Additionally, teams adapting to new societal conditions or expectations can learn to adjust their ways of working to meet the new challenge. This is what activity theory specifies is taking place in what it defines as “innovative organizational learning,” or
“…collaborative learning in work organizations that provides new solutions, procedures, or systematic transformations of organizational priorities” (Engeström, 2008, p. 118).

Course design rubrics for quality are a recent expectation in the field of Web-supported education, getting their start only twenty years ago with the work of Chickering and Gamson’s best practices for teaching and learning in higher education in 1989 (Sherry, 2003). As such, they would seem to be a good candidate for the kind of innovative organizational learning that Engeström describes.

**Project Management: Limitations of the Model**

The third research question in the study asks: How do the perspectives of faculty, course designers, and administrators differ about the project management model in relation to the implementation of the Quality Matters rubric? This section investigates literature that describes limitations of the project management model when used in Web-supported education.

Literature addressing the limitations of the project management approach falls into two categories. One category explores the limitations of the model of “technical rationality” which drives most project management work (Nicoló, 1996; Wilson & Cervero, 1997). Another branch of the research examines the role of the project manager and their preparation for dealing with complexity and ill-structured problems (Pant & Baroudi, 2008; Pinto & Prescott, 1990; Söderlund, 2002; Thomas & Mengel, 2008).

Bates (2000) identified the project management model as widely used in the development of Web-supported education. At the same time, he identified resistance to using this model among faculty. Chief among the criticisms was that it was a burden to
teachers, because it was complicated and restricted their autonomy.

Bates’ argument identifies a core concern of faculty—that the project management approach interferes with their autonomy—as well as a possible reason for their concern: that the approach violates the tradition of the “lone scholar” in research (Bates, 2000). A large body of work on the disciplinary culture of academia confirms Bates’ view that, at least in the social sciences and the humanities, individual rather than joint teaching and scholarly activity is the norm (Damrosch, 1995; Ehrlich, 2000; Karabell, 1998; Krause, 1996; Pelikan, 1992; Rhode, 2006; Wilshire, 1990).

There is abundant evidence in the literature on cultural processes in education that such mismatches between a disciplinary culture’s historical practices and a new initiative can derail cooperation (Barnett, 1992; Burgan, 2006; Daza, Campbell & Slaughter, 1999; Tierny, 2006). Bates points to a fundamental limitation in the use of the project management approach in academe when he addresses the culture of the lone scholar. But there are other limitations as well.

Wilson and Cervero (1997), in their critique of planning practices in adult education (of which project management is one) identify the underlying worldview of technical rationality in these practices. They use Schön’s definition of technical rationality as “…instrumental problem-solving made rigorous by the application of scientific theory and technique” (Schön, 1983, p. 21-22). Wilson and Cervero point out that such planning staples as needs assessment and the setting of objectives are undergirded by the assumptions of technical rationality. “Technical rationality continues to be the privileged theoretical orientation even as theoretical and empirical evidence
mounts to note its limitations in understanding or improving practice” (Wilson & Cervero, 1997, p. 97).

Pant and Baroudi (2008), project management researchers from Australia, attribute project management’s technical rationality to its historical development within systems theory.

Nowhere is faculty concern about the project management approach to developing courses for Web-supported education more apparent than in the writings of David Noble, a professor of history at York University in Canada. In an excerpt from *Digital Diploma Mills: The Automation of Higher Education* (2001), Noble describes the development of an online course at New York University using the project management approach:

> At NYU Online, for example, which considers itself in the vanguard of institutional change, a team of different specialists in course design, development, content, delivery, and distribution handles instruction. Where once a single professor would perform all these tasks as an integrated whole, the detail workers now do their separate parts, with far less control over the process and substantially less pay—precisely the pattern established long ago with the shift from craft to industrial labor that culminated in the assembly worker of modern industry. In short, what we have is the “disassembling and de-skilling of the profession,” as William Scheueman, president of the State University of New York’s United University Professors, puts it. (p. 4)

Beyond project management’s instrumental approach lies another related limitation: the background and training of the project manager. One area of concern is the emphasis for project managers on technical skills at the expense of other skills, such as interpersonal relations. (Thomas & Mengel, 2008). As an antidote to this kind of training,
Thomas and Mengel offer a “soft skills” approach, which emphasizes training in shared leadership, social competence, emotional intelligence, communication, and organizational politics” (p. 308)

**Quality Matters and Development of Quality Courses in Web-Supported Education**

The fourth research question in the study asks: How does the Quality Matters rubric lead to the development of a quality product, as defined by faculty, course designers, administrators, and students? This section investigates literature that describes conceptions of quality in courses for Web-supported education as defined by faculty, course designers, administrators, and students. It highlights descriptions of standards and rubrics for quality, many of which formed the basis for the Quality Matters design standards.

Quality in Web-supported education, for higher education administrators in North America, is historically closely aligned to the standards used by accrediting bodies (Robinson, 2004). Numerous professional organizations have developed standards and benchmarks for such programs, and these standards lists hold many items in common (Thompson and Irele, 2007). One accrediting body whose work has been influential in distance education is the Council for Higher Education Accreditation (CHEA). In 2001, its studies of distance education resulted in a set of standards, “Best Practices for Electronically Offered Degree and Certificate Programs,” that were adopted by all eight regional accrediting organizations in the U.S. (Legon, 2006).
Other collections of best practices for distance education in wide use by administrators at colleges and universities in the U.S. include the Council of Regional Accrediting Commissions (CRAC) document, “Guidelines for the Evaluation of Electronically Offered Degree and Certificate Programs,” and the American Distance Education Commission’s “ADEC Guiding Principles for Distance Teaching and Learning” (Thompson and Irele, 2007).

Faculty definitions of what is meant by quality in Web-supported education are also reflected in the above standards by accrediting bodies to the extent that these policy documents are the product of peer review of programs involving faculty (Legon, 2006). However, faculty members are widely recognized to differ from administrators in their view of Web-supported education. Tensions between faculty members and administrators are well documented. (Burgan, 2006; Cravener, 2008; Maguire, 2005; McLean, 2005; Noble, 2001). These tensions concern management of faculty course creation that is technocratic and restricts creativity (Wilson and Cevero, 1997); issues of faculty autonomy, intellectual property rights over course materials, and job security (Noble, 2001); simplistic promises about technology’s ability to solve problems of access and cost in education (Burgan, 2006); and the use of competitive, market-oriented models for distance education programs (Noble, 2001).

Explorations of the meaning of quality in Web-supported education from the faculty perspective are few in the literature. Several standards-based definitions of quality in Web-supported education use “faculty satisfaction” or “faculty support” as a category to indicate quality a program, where the intention is clearly to empower faculty in the decision-making process about courses and programs (Moore, 2007; Council for Higher
Education Accreditation, 2002). The bulk of the literature on the faculty role in Web-supported education concerns itself with issues such as faculty attitudes toward distance education (Moller & Jones, 2002; Tabata, 2006), faculty motivations to participate in distance education (Maguire, 2005; Perry, 2003), and faculty resistance to participating (McLean, 2005; Rockwell et al., 1999). Though it reveals the instrumental focus of much research on faculty participation in distance education, this work still offers insight into the issues related to quality that faculty deem important. Schifter (2002), in her research on faculty perceptions, found that intrinsic motives outweighed extrinsic motives for faculty in their decisions to participate in distance education. Other researchers (Betts, 1998; Dillon & Walsh, 1992; Lee, 2001; Rockwell et al., 1999) have confirmed the importance of intrinsic motivations such as the above to faculty participation in distance education.

Course designers’ conceptions of quality in Web-supported education are expressed in the immense instructional design literature for online course development, which has already been described in this chapter. Most published quality standards embrace instructional design methods in some way. Some standards call explicitly for an instructional design approach to course development to be used (American Council on Education, 1996; Pennsylvania State University, 1998). Many more specify a development approach that relies on course goals, objectives, and outcomes, to be developed by a faculty member rather than an instructional designer.

The fact that so many quality standards and models embrace an instructional design approach may be a function of the institutional need to assess the success of distance education programs. According to British instructional communications
technology (ICT) researchers Fallows and Bhanot (2005), the use of teaching goals in instruction is closely tied to conceptions of quality assurance.

The student perspective on quality in Web-supported education, like the faculty perspective, is primarily represented in the literature under the categories of “student satisfaction” and “student support.” Published quality standards models typically include categories such as student services (orientation, advising, admissions, placement, enrollment and registration, financial aid, tutoring, library resources, bookstore services, technical support, accessibility for students with disabilities), sense of community, student-teacher interaction, prompt feedback from instructors, and clear course structure and expectations (Chaney, Eddy, Dorman, Glessner, Green & Lara-Alecio, 2007; Institute for Higher Education Policy, 2000; Western Cooperative for Educational Telecommunications, 2010).

**Summary of the Chapter**

This chapter has explored the literature surrounding the three knowledge domains of the study: Conceptions of quality, course design, and management of Web-supported education. The chapter then connected the literature of these domains to the four research questions of the study. In the next chapter, I will continue to make the connections between the literature and the research questions, as I describe the conceptual framework of the research.
Chapter 3
CONCEPTUAL FRAMEWORK

Overview of the Chapter

In the previous chapter, I reviewed the literature describing the three knowledge domains of the study: Conceptions of quality, course design, and the management of Web-supported education. In the literature on quality, I traced the quality assurance movement in North America, in business and industry and in higher education, and identified influences and trends, as well as several arguments within the literature. Chief among them was the debate over the relative merit of approaches to quality that use readily-available institutional metrics for measurement versus approaches that take a wider view and emphasize the educational processes that students go through. This debate has been described as one over extrinsic versus intrinsic definitions of quality (Barnett, 1992; Fresen, 2005).

The review of literature on course design identified trends in both face-to-face and distance course development. It followed the influence of several generations of instructional design theory and models—and the emergence of constructivist learning theories—on the design of courses for distance education. The review followed the development of standards and course design rubrics, and pointed out their use by
accrediting bodies in higher education, particularly in the United States. Finally, it described the development of the Quality Matters approach and design rubric in the context of evolving standards.

The description of the literature relevant to the management of Web-supported course development concentrated on the research devoted to project management models. Like the previous section on course design, this review of management models showed several generations of thought regarding what a project manager should know and be able to do. Finally, the chapter reviewed various stakeholders’ perspectives on quality in Web-supported education. Administrators, faculty, instructional designers, and students revealed both agreement and disagreement on what constitutes quality.

In this chapter, I will review themes synthesized from my literature review. Then I will connect these themes to a conceptual framework for conducting this research. Finally, I will introduce a conceptual model based on activity theory for thinking about the pursuit of quality management in course design for Web-supported education.

The review of the literature in the three knowledge domains pointed to several common themes between them. Firstly, the development of Web-supported courses is a complex activity involving multiple actors and stakeholders. Secondly, the view of what high-quality Web-supported courses should look like is different for these various actors and stakeholders. Finally, all of the actors and stakeholders make use of a range of tools to design and develop courses, and to improve them. Some are technological, such as computer systems, but others are symbolic and textual, such as course design standards and rubrics.
Both the number of actors and stakeholders involved, and the complexity of their interactions with each other and with the tools they use, suggest that the theories used to study this activity must be able to embrace an entire, inter-dependent system of human endeavor. The various actors and perspectives involved—and the conflicting views of quality that they hold—also demand that any theory used be able to locate tensions and contradictions between the participants in the course design process. As we will see in the next section of this chapter, Cultural Historical Activity Theory (CHAT) is well-suited to the task of analyzing such a complex human activity that is mediated by a complex use of tools, both technological and symbolic.

**Background Theories**

This study draws on three theories of learning and social relations in its analysis of quality in Web-supported education: Expansive Learning Theory, also referred to as a cyclic model of learner actions (Engeström, 2007); Cultural Historical Activity Theory, or CHAT (Leont’ev, 1978; Lompscher, 2006), and Grounded Constructivist Theory (Charmaz, 2000). The conceptual model for the research uses the cyclic model of learner actions—within the framework of activity theory—to explore the functioning of course design teams as they develop Web-supported instruction. The study uses grounded constructivist theory to examine participants’ insider views of course design and quality.
CHAT and Activity Theory

Most histories of CHAT and activity theory put Marx at its very beginnings. The interpretation of Marx’s work came, however, from Russian psychologists from the early part of the 20th century. Engeström (2008) describes CHAT’s beginnings this way:

The cultural-historical theory of activity was initiated by a group of revolutionary Russian psychologists in the 1920s and 1930s, determined to turn the spirit of the Feuerbach theses into a new approach to understanding and transforming human life. The basic concept of the approach was formulated by Lev Vygotsky (1896-1934), the founder of the school. According to Vygotsky, psychology in the 1920s was dominated by two unsatisfactory orientations, psychoanalysis and behaviorism. Vygotsky and his colleagues A. R. Luria and A. N. Leont’ev formulated a completely new theoretical concept to transcend the situation: the concept of artifact-mediated and object-oriented action (Vygotsky, 1978, p. 40). A human individual never reacts directly (or merely with inborn reflex) to environment. The relationship between human agent and objects of environment is mediated by cultural means, tools and signs. (p. 1)

Activity theory is a meta-theory, and as such, it helps locate other theories about human activity and social behavior. CHAT is closely related to symbolic-interactionist theories such as ethnomethodology and actor-network theory primarily through both theories’ interest in how members of a group do things. CHAT explores this as object-directed activity, whereas ethnomethodology calls this “members’ methods…” (Koschmann, 2008, p. 364), and actor-network theory calls it the perspectives of actors in a network (Star, 1991). CHAT theory is related to Dewey’s Theory of Actions in that both see experience as central, because it is through experience that subjects and objects
gain meaning (Bourke, 1975). CHAT has similarities to the sociocultural theory of mediated action in that it is interested in the cultural mediation of human activity, although the latter theory has little interest in historicity, as does CHAT (Engeström et al., 1999, p. 11). CHAT holds similarities to the theory of situated learning and legitimate peripheral participation (Lave & Wenger, 1991) in that both theories are interested in object-oriented work (Engeström et al., 1999). Finally, CHAT theory is similar to Bakhtin’s definition of signs and notion of utterances in its interest in the importance of human communication in interpreting activity (Engeström et al., 1999).

Engeström identifies three generations of activity theory. The first revolved around the work of Lev Vygotsky and developed the concept of mediation of activities by artifacts. This early definition of mediation did not include other humans or social relations, however (Engeström, 2008).

Leont’ev’s work makes up the second generation of activity theory. Leont’ev created the distinction between an individual’s activity and a collective activity, and developed what has come to be known as the three-level model of activity: activity, action, and operation (Engeström, 2008).

The third generation of activity theory is sometimes credited to Yrjö Engeström of Finland, who broadened the concept of activity and began applying CHAT to new contexts. Engeström stressed the mediation of human activities by signs, and also renewed interest in collective activity as both a system and an object of transformation (Lompscher, 2006). Engeström focused his research on adult learning in a variety of workplaces.

In 2001, he published a list of five principles of CHAT (Lompscher, 2006, p. 48):
• A collective, artifact-mediated and object-oriented activity system, seen in its network relations to other activity systems, is taken as the prime unit of analysis.
• An activity system is always a community of multiple points of views, traditions and interests (multi-voiced).
• Activity systems take shape and get transformed over lengthy periods of time (historicity).
• The central role of contradictions as a source of change and development. Contradictions are historically accumulating structural tensions within and between activity systems.
• The possibility of expansive transformations of activity systems.

The methods Engeström uses in his research on workplaces are typical of CHAT research generally (Leont’ev, 1978; Lompscher, 2006). The methods range from interpretive observation to critical interpretive observation. Subjective interviews are a key tool for explaining the perspective of workers in workplaces. Engeström uses conversation analysis and discourse analysis of videotaped recordings of workgroups in action as an important source of data about workplace activity. He then codes this data, using interpretive and critical approaches to the coding, to identify and examine disturbances within the work environment. Engeström further analyzes these disturbances in the data to find contradictions within the workplace, sometime related to rapid structural change within the industry under observation. By analyzing these contradictions and comparing them to sociohistoric patterns within the industry, Engeström develops theories of how innovation and change take place at work.
The roads leading to CHAT theory came from several fields of research, and from several trends in instructional design. Two trends from the 1980s response – a more complex view of learners, and the popularity of ecological viewpoints and models – were crucial. Heightened interest in more complex learners made researchers more interested in learners’ subjective views, perspectives, and activities. Interest grew in incorporating learners—and technology users’—views into the instructional design process itself. Co-design, as promoted by instructional design theorist Thiagarajan (“Thiagi”) is an example of this movement (Thiagarajan, 2007). In the world of physical design, the trend to incorporate end-users views is reflected in a school of design know as reflective design (Sengers, Boehner, David & Kay, 2005).

Interest in the views of learners and users of technology demands new ways of learning about their subjective views and understanding their activities in real-world contexts. CHAT would come to address these needs to understand learners in more depth.

The popularity of ecological approaches for designing instruction also had an impact on the acceptance of CHAT. A tenant of these approaches is to view learners within complex environments that connect them to other learners, tools, and mediating artifacts (Nardi & O’Day, 1999). Instructional designers found themselves in need of models and methods that would embrace the interaction between learners and their tools. CHAT methods also addressed that need.

Particular research fields and developments within them in the 1980s and 1990s also drove the emergence of CHAT. In the new field of human-computer interface design, researchers such as Lucy Suchman were running into difficulty predicting how users of complex, computerized interfaces for devices such as photocopy machines would
react in various situations. Prevailing practices, rooted in cognitive science, used for developing these interfaces were proving incapable of success. Suchman pinpointed the problem as a weakness in cognitive scientists’ understanding of how the interaction between a user and a complex device unfolds. In Suchman’s words, “…the coherence of action is not adequately explained by either preconceived cognitive schema or institutionalized social norms. Rather, the organization of situated action is an emergent property of moment-by-moment interactions between actors and the environment of their actions” (Suchman, 1987, p. 178).

Another difficulty, related to Suchman’s, was occurring in the rarified world of artificial intelligence research. Researchers who hoped to provide computers with relevant facts about the world in order to produce human-like intelligent behaviors concluded it would require organizing all background or common sense knowledge that humans use (Dreyfus, 2001). Philosopher Hubert Dreyfus of the University of California claims that researchers have now abandoned this effort. But the failure of the research brought new attention and standing to the epistemology of social constructivism and its privileging of human embodied activity. In turn, it focused attention on CHAT as a potential method for studying human’s use of background and common sense information in daily activity.

Another impetus for the development of CHAT comes from the field of labor studies and studies of work. Sociological macro studies of the workplace, sometimes called the “labor-process debate,” have looked at skills and organization surrounding issues such as flexible production and lean production (Engeström, 1996). Microsociological studies have been more interested in human activity within specific
workplaces. This research spans many years, from the work of Hughes and the early Chicago school through more recent workplace ethnographies by social scientists in many different contexts (Becker, 1961; Glaser, 1976; Harper, 1987; Strauss, 1990). CHAT showed potential for gathering information about these workplaces from a new vantage point. Finally, a large body of workplace studies had been done on human-computer interaction. Theses studies of fast-changing fields and technologies (Boweres & Benford, 1991; Grief, 1988; Schmidt & Bannon, 1992) fall under the general label of “computer-supported cooperative work” (Engeström, 1996, p. 3). With a history of interest in situated studies of computer use, this field quickly became interested in the activity-oriented and tool-mediated focus of CHAT research. (Engeström 1996).

In summary, CHAT theory is appropriate for this study because it can be used to analyze learning in workplaces. It is also appropriate for studying the design process involved in producing Web-supported courses—and, indeed, CHAT theory has led to novel approaches to instructional design itself (Gay & Hembrooke, 2004).

**Triangle Model of Activity Theory**

Activity theory is often visualized in the form of a triangle, as in Figure 3.1 below. The Center for Activity Theory and Developmental Work Research describes the components of the triangle in this way (University of Helsinki, 2007, p. 1):

- **Subject**: The individual or sub-group selected as the point of view in the analysis;
- **Object**: The ‘raw material’ or ‘problem space’ at which the activity is directed, and which is molded and transformed into outcomes;
• Mediating Artifacts (Instrument): Physical and symbolic tools and signs;
• Division of Labor: The horizontal division of tasks between the making of the community and the vertical division of power and status;
• Rules: The explicit and implicit regulations, norms and conventions that constrain actions and interactions within the activity system;
• Community: External and internal mediating sub-groups who share the same general object and who construct themselves as distinct from other communities;
• Outcome: Developmental learning outcomes molded and transformed by the activity.

![Figure 3.1 Engeström’s structure of human activity (adapted from Engeström, 2006, p. 31)](image_url)

In classical activity theory analysis, the researcher searches for tensions and contradictions between various components of the activity triangle. These tensions and contradictions trigger cycles of innovation and expansive learning involving participants in the activity.
Conceptual Framework of a Quality Management Model

Quality assurance has been the focus of a number of research studies using activity theory in the past. Engeström’s group has studied teams of works and quality assurance practices in the manufacture of turbines (Engeström et al., 1999) and in the delivery of health care services (Engeström, 1995). Other researchers in Scandinavia have used activity theory to study quality assurance in computer systems design (Bodker & Gronboek, 1996).

This study will attempt to create a model for quality management for Web-supported course design, as illustrated in Figure 3.2. The model will help to explain how the creators of Web-supported courses go about developing the meaning of quality and innovation in their work. In this activity triangle, the object—always socially constructed and the focus of activity in a CHAT study—is the creation of a high-quality, Web-supported course. It is connected to the other parts of the activity triangle in the following ways:

- **Subject**: The individual or sub-group selected as the point of view in the analysis.

  In this case, I include everyone who is involved in the course design and development process, including faculty members as well as staff from the distance learning department. The subject acts directly on the object, but also interacts with all the other points on the triangle: Instrument, Rules, Community, and Division of Labor.
- **Instrument**: *Physical and symbolic tools and signs*. In Engeström’s view, this includes both human and non-human mediating artifacts. In the activity of Web-supported education, I’ve included computer tools, instructional design models, the computerized infrastructure of the institution itself, and the course design rubrics, such as Quality Matters, that designers use to guide the development process. Instruments are primarily a mediating force for the Subject in its relationship to the object. The management model represents human mediating artifacts.

- **Division of Labor**: *The horizontal division of tasks between the making of the community and the vertical division of power and status*. The Division of Labor includes the management model in use at Big Town for Web-supported course development. Like the Subject, the Division of Labor interacts with all the other points on the triangle.

- **Rules**: *The explicit and implicit regulations, norms and conventions that constrain actions and interactions within the activity system*. Rules primarily affect the Subject as it conducts the activity. I’ve included institutional rules, departmental rules and rules outside the College, such as those of accrediting bodies and professional associations.

- **Community**: *External and internal mediating sub-groups who share the same general object and who construct themselves as distinct from other communities*. This category includes communities within Big Town, as well as professional communities and the general public.
• Outcome: Developmental learning outcomes molded and transformed by the activity. In this study, the outcome is student learning and student success, which at Big Town Community College usually means passing grades. All the parts of the activity triangle affect the Outcome, in that it is molded and transformed by all of them.

Figure 3.2 An activity triangle model of quality management in a Web-supported course design process

The location of design rubrics for quality in Web-supported education in the Instrument category is particularly noteworthy in this diagram. As a structure of mediating design tools, design rubrics fit the description of a psychological tool as described by Vygotsky, who defines it as “…tools that are directed toward the same
mastery or control of *behavioral* process in the same sense that ordinary tools are directed toward the control of nature*” (Vygotsky, 1981, p. 137).

Another notable feature of this quality management model is the placement of course designers as the subject of the analysis. They interact with the mediating tools of quality rubrics at one end of the triangle, but they also relate to societal rules concerning course quality, such as university rules and the rules of accrediting bodies, at the other end of the triangle. This placement suggests interesting potential contradictions and tensions for course designers as they attempt to balance these notions of quality for themselves.

**Expansive Learning Theory**

Engeström defines expansive learning theory in the context of CHAT or activity theory. “The process of expansive learning should be understood as construction and resolution of successively evolving contradictions in the activity system” (Engeström, 1999, p. 8).

Yrjö Engeström first published his conception of expansive learning theory in Finland in 1987, in a book titled, *Learning by Expanding* (Engeström, 1987). The theory is directly tied to Vygotsky’s famous conception of zones of proximal development, which he defines as, “The distance between the actual development level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers” (Vygotskïï, 1978, p. 86). In 1999, ten years after its introduction, Engeström defined expansive learning this way: “expansive learning is a historically new type of
learning which emerges as practitioners struggle through developmental transformations in their activity systems, moving across collective zones of proximal development…” (Engeström, 1999, p. 3).

Engeström and his colleagues at the Center for Activity Theory and Developmental Work Research at the University of Helsinki have performed many studies of expansive learning in workplaces. A prominent study of a high-technology turbine factory in California, “Knowledge Creating in Industrial Work Teams,” (Engeström, 2008), focused on the “hows” and “whys” of learning and innovation in teams in this facility. The researchers explored the communications dynamics of a production team as it wrestled with weekly problems related to quality control of parts. Through analyzing the recorded conversation of the team, analyzing meeting documents, and performing additional interviews with team members, Engeström documented an expansive cycle of learning. This event within the team resulted in sending an innovative proposal to the company’s upper management.

Engeström and his colleagues have observed similar cycles of expansive learning within teams in professional settings as well, including medical offices, judges’ chambers, and classrooms (Engeström, 2007). By documenting the tensions and contradictions within the team’s communications, Engeström confirmed the existence of a series of steps describing the expansive learning cycle (Engeström, 2008, p. 132):

- Questioning
- Historical and Empirical Analysis
- Modeling the New Solution
- Examining the New Model
In an example from the health care field studied by Engeström and his team, a health clinic undertook a process of quality improvement of their health services in the wake of a national reorganization (Engeström, 1995). The first step, questioning, took place between management, physicians, and nurses, and asked basic questions about bureaucratic practices and long waits for patients. Step 2, historical and empirical analysis, discovered that the clinic’s activities were still being conducted according to outdated procedures from years earlier. Step 3, modeling the new solution, took place as physicians and others began to use new approaches in their daily practice that were more compatible with the new national model of using multi-professional teams within regions of the country. Step 4, examining the new model, took place as clinic staff criticized the new approach as diverting energy from patient care to hold team meetings. Step 5, implementation, was taken by the entire health care group, of which the clinic was a part, three years after the project began. Step 6, reflecting on the practice, took place as staff assessed the tradeoffs between the new way of working in teams and the old way. Finally, the clinic staff took Step 7 to consolidate the practice as their clinic moved in to a new building with a better design for the new model of care using teams.

This sequence traces a learning cycle known in CHAT terminology as “ascending from the abstract to the concrete” “In an expansive learning cycle, the initial simple idea is transformed into a new form of practice” (Engeström, 2008, p. 129-130).
The significance of expansive learning in teams is paramount in Engeström’s (2008) theory of how people innovate in the workplace. He calls the end product of expansive learning a “shared object”:

The formation of a shared object is a major collaborative achievement. It is above all an analytical achievement, including the formation and use of historical explanations, systematic comparisons, and explanatory principles. (p. 163)

In this study, I used the theory of expansive learning to examine innovation in the activity of the distance learning department’s course design team at Big Town Community College. I combined several of the steps listed above to create a five-step process. This is possible because some of the steps happen simultaneously in workplace activity. The five steps, or phases, are a need phase, an analysis phase, a modeling phase, a testing the model phase, and an implementing the model phase (Igira & Aanestad, 2009, p. 212). I analyzed the department’s efforts—beginning before I arrived in January 2009 and continuing after my fieldwork ended in June 2009—to adapt their design process to increasing pressure to produce more courses for the College.

Through the analysis of one cycle of innovation and organizational learning in Big Town’s distance learning department, I address my second research question: How does the project management model used at Big Town support and hinder the implementation of the Quality Matters rubric? Expansive learning theory allows me to analyze Big Town’s management model—and its approach to maintaining quality—in detail as the staff struggled to respond to tensions and contradictions around the issues of productivity and workload.
Constructivist Grounded Theory

Although this study draws on grounded theory, it uses only some of grounded theory’s methods, and not the full method. My use of constructivist grounded theory is restricted to my approach to sampling and to data coding and analysis. This study uses purposive sampling, a hallmark of grounded theory. Purposive sampling will “…seek out groups, settings, and individuals where and for whom the processes being studied are most likely to occur” (Charmaz, 2000, p. 370). I chose Big Town Community College as a research site because the characteristics of its distance learning program matched the characteristics of the processes I wanted to study – the use of a quality improvement approach at the course design level, within a department that used a defined management strategy to do the work. This study also used purposive sampling to choose a course design effort to observe. I selected one course design effort for in-depth study. In addition to this detailed study, I selected two other courses and their principal creators for targeted interviews—to give a varied view of the way course design occurs at Big Town. These two courses varied from my in-depth course in terms of content area, their degree of use of video and other media, and the instructional designer assigned to develop the courses.

Constructivist grounded theory also specifies an approach to data analysis known as constant comparison. This method takes the following approach to data analysis (Charmaz, 2000, p. 515):

- comparing different people;
- comparing data from the same individuals with themselves at different points;
• comparing incident with incident;
• comparing data with category;
• comparing a category with other categories.

I used the above approach to analyzing qualitative data throughout the study. In addition, grounded theory recommends keeping coding categories “active,” by which it means revisiting the coding categories frequently, and re-coding for new concepts as they become apparent to the researcher (Charmaz, 2000, p. 515).

**Summary of the Chapter**

In this chapter, I reviewed themes synthesized from my literature review and connected these themes to a conceptual framework for conducting the research. Finally, I introduced a conceptual model based on activity theory for thinking about the pursuit of quality management in course design for Web-supported education. In the next chapter, I will describe my research philosophy, the research design, and the methods I used.
Chapter 4
METHODS

Overview of the Chapter

This chapter describes my research philosophy, the research design I created, and the methods I used. The chapter begins with a description of the nature of qualitative research using an interpretivist stance. It then goes on to describe the research design: its context, the participants, and the strategies used to address the research questions. Finally, I discuss the methods used: The data collection, data analysis, validity, and ethics of the approach.

My primary research question asks: To what extent, and in what ways, does the use of the Quality Matters course design rubric support and hinder faculty and staff in the design of a Web-supported course? Related to this question are secondary research questions that examine the issues of management and quality:

2) How does the project management model used at Big Town support and hinder the implementation of the Quality Matters rubric?

3) How do the perspectives of faculty, course designers, and administrators differ about the project management model in relation to the implementation of the Quality Matters rubric?
4) How does the Quality Matters rubric lead to the development of a quality product, as defined by faculty, course designers, administrators, and students?

**Research Philosophy**

This study uses a qualitative approach to issues of quality – their definition and their application within a working organization – to describe their complexity within a social context. To do this, I chose to work in a post-positivist, interpretive paradigm, using Kuhn’s notion of paradigms as agreed-upon principles through which to view the world (Kuhn, 1962). While positivist research is concerned with proving or disproving a hypothesis, post-positivist work is concerned with interpreting or understanding the context of its research questions (Green & Stinson, 1999).

The interpretive paradigm for post-positivist research emphasizes a situated, naturalistic approach to a situation, attempting to understand the meanings people bring to it (Denzin & Lincoln, 2000). Its ontological view is that reality is subjective and constructed (Berger & Luckmann, 1966). Its epistemological view is that “Truth is many” (Sipe & Constable, 1996 p. 155). Yvonna Lincoln characterizes this latter view as a “subjectivist epistemology,” in which understandings are co-created by knowers and respondents (Denzin & Lincoln, 2000, p. 21).

In interpretive research, knowledge is created from “the reconstruction of intersubjective meanings” (Greene, 1990, p. 235). These meanings are created rather than discovered (Lincoln & Guba, 1985). The co-creation of meaning and knowledge by actors is a key concept in a study such as this, which analyzes the views of people who interact in a work setting.
Interpretive research also has a commitment to reflexivity, and to understanding the position of the researcher in the research process. In the words of Yvonna Lincoln (2008), the researcher is an “interpretive bricoleur,” or a kind of quilt maker, who:

“…understands that research is an interactive process shaped by his or her personal history, biography, gender, social class, race, and ethnicity and by those of the people in the setting.” (p. 6)

As Lincoln makes clear above, in interpretive research, the researcher is obligated to examine his or her position relative to informants and to data sources in great detail. This obligation is known as reflexivity or critical subjectivity (Lincoln, 1995) and researchers such as Lincoln consider it to be an indication of rigor or trustworthiness in qualitative research.

Lincoln implores the researcher to be mindful of his or her emotions relative to the fieldwork setting, the relationships with informants and issues of status and power between the researcher and the researched. She also argues elsewhere that the researcher needs to be as reflexive about their writing as about their conduct in the field. The position of the researcher – his or her social, cultural, historical, racial, and sexual identity relative to that of the informants – appears in the way the researcher writes about the research. Positionality, as this is known, is also a characteristic of high-quality interpretive research, according to Lincoln. By being aware of it, the researcher acknowledges the partial and incomplete nature of all texts, including their own. In Lincoln’s words, a researcher who is aware of positionality “comes clean” about their own stance as the author relative to the people he or she is researching (Lincoln, 1995, p. 280).
**Research Approach: An Instrumental Case Study**

This study uses an instrumental case study approach to the research. An instrumental case study is one in which, “The use of case study is to understand something else,” in this case, the meanings of quality in Web-supported education (Stake, 1995, p. 3). According to S. Kleinman, an ethnography of an online environment, like a case study of other face-to-face content, is typically conducted when the researcher is interested in studying particular contextual conditions in order to investigate multiple issues of interest in depth (Kleinman, 2004). In the case of this study, the contextual conditions have to do with a college’s distance learning department, and its team approach to designing online instruction.

The goal of the case study strategy is not to generalize to other contexts, but to study the particular, local context (Stake, 1995). It then falls to readers to undertake generalization to their own particular situations. The constructivist viewpoint of case study research encourages this activity of “providing readers with good raw material for their own generalizing” (Stake, 1995, p. 102). Instrumental case study researchers do this by describing a single case in vivid and massive detail, and then writing about the findings clearly, in such a way that readers follow the arguments and apply them to their own data (Stake, 1995).

**Research Design**

Qualitative research design, according to the Handbook of Qualitative Research, “…is a flexible set of guidelines that connect theoretical paradigms first to strategies of inquiry and second to methods for collecting empirical material” (Denzin & Lincoln,
This study used a constructivist-interpretive paradigm to explore the process of distance education course design. The study used case study strategy of inquiry (Stake, 1995) informed by Cultural Historical Activity Theory (CHAT) (Engeström & Middleton, 1996) and constructivist grounded theory (Charmaz, 2000). The methods of collection and analysis of data emphasized interviewing, observing, and the collection of relevant artifacts, documents, and records (Denzin & Lincoln, 2000).

Cultural-Historical Activity Theory (CHAT) is a theory framework particularly suited to studying practices in the workplace (Engeström, 2008). As a tool for exploring the relationships between people, their environment, their tools, and societal forces, CHAT is well suited for analyzing a rubric such as the Quality Matters rubric. CHAT grew out of the work of Lev Vygotsky in the 1920’s and 1930’s, and owes a great deal to the work of A.N. Leont’ev (Leont’ev, 1978; Lompscher, 2006). Somekh and Lewin compare CHAT to action research in that it “…stresses the integration of basic theoretical work with empirical-practical engagement” (Somekh & Lewin, 2005, p. 190).

Somekh and Lewin identify four steps in research design for CHAT studies (Somekh & Lewin, 2005, p. 190-191):

- An historical reconstruction of the category or concept under study;
- The design of an engagement in a prototypical practice, with an eye to its relevance to the problem in the real world;
- The inscribing of the process into data;
- The analysis of data by placing activities into models, which are constructed to challenge experience (seek out contradictions) and to suggest ways to meet those challenges (mediate and resolve contradictions).
CHAT theory, as developed by Engeström, is often expressed in diagrammatic form as a triangle (See Figure 4.1). Engeström’s triangular model expands Marx’ model of human activity as material production to include mediation by tools—both technological and psychological—as well as by signs and by other people (Engeström, 2007). CHAT’s recognition of the role of mediating tools is a widely-recognized strength of the theory in analyzing activities with a large technology component, such as distance education (Kaptelinin & Nardi, 2006).

![Figure 4.1 Engeström’s structure of human activity (adapted from Engeström, 2006, p. 31)](image)

My second and third research questions focus on the interaction of the management model in use at Big Town Community College with the use of the Quality Matters rubric for course design. CHAT theory has a long history of studies of learning at work—a key concern of managers in any organization (Engeström, 2008). Activity theory’s emphasis on the production of something useful to society, as well as on the
division of labor, also makes it well suited to studying a management model within an organization.

**Research Site**

Big Town Community College is an institution in southwestern Ohio that enrolled over 23,000 full and part-time students in 2009 (Larsen, 2009). With a full-time faculty of 438, Big Town awards two-year degrees and certificates, and feeds students to a number of other four-year campuses in the region to complete four-year degrees. It has had an active distance education program since 1979. In 2009, nearly 5,800 students took at least one Web-supported course online (Larsen, 2009). I first met the Dean of Distance Learning at Big Town when she worked at another campus in Ohio. As I began my doctoral studies, I contacted her and conducted an interview and observations in her department, the Department of Distance Learning and Instructional Support, in 2007. During this interview, I learned that Big Town planned to join a consortium of colleges in Ohio and around the country using a quality improvement process for distance education courses called Quality Matters. As I continued my coursework, I learned more about the long history of distance education at Big Town, and decided to examine issues of quality at the College.

**Participants**

A case study such as this—inform ed by activity theory and constructivist grounded theory—approaches sampling in a purposive way rather than as random sampling. Purposive sampling is based on the concept of seeking out groups of people
and research settings where the social phenomena under study are most likely to be found (Charmaz, 2000).

Sampling decisions in this study began with the choice of a case to study. I chose to study the course design process at Big Town Community College in southwestern Ohio because it employs a management model of course design using clearly-defined course design teams to do the work, which resembles a project management model. This model of management is significant, because it is one of the two most common models in use in higher education in North America (Moore & Kearsley, 2005). British researcher of open and distance learning Hilary Perraton urges researchers of distance education to avoid separating issues of quality from those of its management in organizations. (Perraton, 2004) This is an instrumental case study, in that the case is used as a way to understand something else, such as an issue or a trend. (Stake, 1995).

This study analyzed a university distance learning department with a significant track record of course development (100 courses developed or more to date), and studied a design team and faculty members as they develops an entire course. I again used purposive sampling to interview or observe everyone participating in a single course design process. I interviewed all design team members for one course: Management 101: World Business. These team members included a distance learning manager, an instructional designer, a course coordinator, a technical programmer, and a graphic designer. Two faculty members were in charge of developing this course – one a full-time professor and department chair, the other a part-time adjunct faculty member.

In order to get as broad a view of the course design process at Big Town as possible, I also interviewed the principal actors in two more course design efforts running
in parallel with Management 101. These two courses were Introduction to Supervision, also a Management department course, and a Health Information Management intermediate capstone course from the Health Information Management department. I interviewed four more faculty members in charge of developing these courses. I also conducted observations that included a television producer/director and his production team, who were involved in created content for both courses.

Additionally, I observed one department-wide orientation session for faculty, one orientation session about the department’s learning management system (also for faculty), and one large distance learning department meeting consisting of the entire staff of instructional designers, course coordinators, and support staff. I used field notes and thick description to document observation sessions.

Within the institution, I conducted interviews and observations in different departments or at different levels in the organization’s hierarchy. This micro-level type of comparison within an organization can be used to obtain a sample of diverse viewpoints that can be compared to broader theories of how institutions are supposed to function (Denzin & Lincoln, 2000; Engeström, 2008). This approach is valuable when analyzing work knowledge within an organization that is distributed throughout different groups within that organization; in other words, when exploring knowledge that is socially distributed (Raeithel, 1996). I interviewed the Dean of Distance Learning, as well as the Associate Provost of Instruction, to whom she reported. I also interviewed one additional faculty member from the Management department, with the express purpose of gathering views from a faculty member who was not enthusiastic about distance education. I
contacted this faculty member on the recommendation of the faculty chair in his department.

I conducted interviews with Big Town students who had taken an online course within the past two years, in order to gather information about how current and recent students view course quality in the distance education experience. I recruited students by posting a recruitment poster in computer labs in and adjacent to Building 14, which houses the distance education offices. I also attempted to recruit students in areas outside of computer labs, such as the library, to obtain a more diverse sample of students. However, Big Town’s rules about soliciting students for research activities did not allow me to do this, and my access to students was restricted to soliciting in labs. As a result, my interviews with students may be biased toward students who travel to campus, as opposed to those working solely at a distance, as well as toward students who use computer labs for studying rather than other locations on campus.

Finally, I conducted several background interviews with distance learning experts, both in Ohio and nationally. The majority of these interviews were for the purpose of learning more about the Quality Matters project. One participant manages the Quality Matters consortium in Ohio, and works for a state agency. Three more were distance education leaders who have either trained faculty and staff in the use of Quality Matters or were involved in its initial development.

In all, twenty-six participants were involved in the research. The entire group of participants is listed in Table 4.1:
<table>
<thead>
<tr>
<th>Participant</th>
<th>Job Title</th>
<th>Month they joined the study</th>
</tr>
</thead>
<tbody>
<tr>
<td>AE</td>
<td>Instructional designer</td>
<td>January 2009</td>
</tr>
<tr>
<td>CL</td>
<td>Adjunct faculty member</td>
<td>February 2009</td>
</tr>
<tr>
<td>GW</td>
<td>Faculty member</td>
<td>February 2009</td>
</tr>
<tr>
<td>CS</td>
<td>Course coordinator</td>
<td>February 2009</td>
</tr>
<tr>
<td>EG</td>
<td>Instructional designer</td>
<td>February 2009</td>
</tr>
<tr>
<td>JA</td>
<td>Faculty member</td>
<td>February 2009</td>
</tr>
<tr>
<td>LW</td>
<td>Faculty member</td>
<td>February 2009</td>
</tr>
<tr>
<td>WL</td>
<td>Student</td>
<td>April 2009</td>
</tr>
<tr>
<td>DF</td>
<td>Graphic designer</td>
<td>April 2009</td>
</tr>
<tr>
<td>RL</td>
<td>Distance learning manager</td>
<td>April 2009</td>
</tr>
<tr>
<td>ND</td>
<td>Associate provost</td>
<td>April 2009</td>
</tr>
<tr>
<td>DM</td>
<td>Student</td>
<td>April 2009</td>
</tr>
<tr>
<td>SQ</td>
<td>Instructional designer</td>
<td>April 2009</td>
</tr>
<tr>
<td>BW</td>
<td>Dean of distance learning</td>
<td>April 2009</td>
</tr>
<tr>
<td>CM</td>
<td>Faculty member</td>
<td>June 2009</td>
</tr>
<tr>
<td>SK</td>
<td>Student</td>
<td>June 2009</td>
</tr>
<tr>
<td>HH</td>
<td>Student</td>
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<tr>
<td>NS</td>
<td>State agency administrator</td>
<td>June 2009</td>
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<tr>
<td>DP</td>
<td>Student</td>
<td>June 2009</td>
</tr>
<tr>
<td>Edward Bowen</td>
<td>Dean of distance learning, Dallas Community College District</td>
<td>June 2009</td>
</tr>
</tbody>
</table>

Table 4.1 Participant list for the study

Continued
Table 4.1 Participant list for the study

<table>
<thead>
<tr>
<th>CR</th>
<th>Faculty member</th>
<th>June 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>John Sener</td>
<td>Quality Matters expert</td>
<td>June 2009</td>
</tr>
<tr>
<td>Pam Quinn</td>
<td>Distance learning administrator, Dallas Cty. Community College District</td>
<td>June 2009</td>
</tr>
<tr>
<td>CD</td>
<td>Programmer</td>
<td>June 2009</td>
</tr>
<tr>
<td>Kay Shattuck</td>
<td>Quality Matters director of research</td>
<td>August 2009</td>
</tr>
</tbody>
</table>

**Study Procedures**

This qualitative study uses an interpretivist approach to the topic of quality in distance education. My last research question asks: How does the Quality Matters rubric lead to the development of a quality product, as defined by faculty, course designers, administrators, and students? This question makes clear that the perspectives of various stakeholders in course quality are important to the researcher’s understanding of the social and cultural processes involved. A qualitative approach, using an interpretivist paradigm and a sociohistoric theory such as CHAT, is a suitable choice of theory and method for this topic. The study gathered data using structured and semi-structured interviews with distance education design team members and administrators at a single institution. The study gathered documents at distance learning offices and continuing
education offices at the site. I gathered electronic and paper work samples of the online course as it developed, as well as any previous versions of the course.

The purpose of this qualitative study is to understand more about how the creators of distance education courses go about developing the meaning of quality in their work. By studying the course design process, as well as explaining the issues of quality at various levels in a community college, this study leads to an understanding of where innovation occurs in the course design process, and where barriers to innovative work exist.

**Observation**

Observation is a cornerstone method of all ethnographic research (Pollner & Emerson, 2001; Stake, 2003) and is particularly important to researchers using CHAT and activity theory (Raeithel, 1996). I conducted observations in the offices of the distance learning department at Big Town Community College, as well as in the offices of faculty departments involved in developing the three courses I examined: Management and Health Information Management. In particular, I studied the workflow and discussion that takes place in both planning meetings and in production meetings of members of the course design team: usually consisting of faculty members, technologists, and a project manager. I made these observations once every two weeks on average for the first four months of my fieldwork. I recorded the observations in my field notes as thick description. (Engeström, 1996). I also wrote about my reactions to people and my observations about them in a reflexive journal. These reflections became the basis for theoretic memos about the research, which I recorded bi-weekly during the six months of
fieldwork. I used video recording during two production meetings in order to visualize people interacting with tools such as computers. I also used video recording for a tour of the Web-supported course, Management 101, by a faculty member, and for two course evaluations described by instructional designer. Again, the purpose of the video recording was to clarify references by the informants to features of their online courses, particularly when they pointed to a detail on a monitor. I transcribed these gestures in the interview transcripts in parentheses. All other recordings were done using digital audio equipment.

I also made observations in locations frequented by students, such as the main library, a cafeteria, pedestrian bridges, walkways, and parking lots. I looked for clues about the culture of the campus, such as the diversity, age, and gender of the student body, and status clues such as students’ style of dress. I also looked for documents during these observations such as campus fliers and materials on bulletin boards. I recorded these as thick description in field notes.

**Interviews**

Structured and semi-structured interview are another hallmark of the ethnographic, interpretive case study. I conducted interviews with all principals in the course design process: faculty, technologists, project managers, and other members of the creative team such as instructional designers and graphic artists. These interviews were recorded on digital audio equipment and later transferred to the computer of the principal investigator, at which point the original audio files were erased from the recording equipment. Access to the principal investigator’s computer is password-protected. Signed informed consents were collected from all interviewees, and their identities are protected
using pseudonyms in all subsequent research uses of the data. The consent form appears as Appendix A.

In my questions for the design work team and for faculty members, I asked about how they viewed the course design process, how they felt about working with staff and colleagues, and how they defined quality in a Web-supported course. The interview protocol can be viewed as Appendix B. I also asked many questions about the way work was organized and how it was managed, and what tools, both mechanical and symbolic, they used in the course of their work. I also asked about “disturbances,” which are “…actions that deviate from the expected course of normal procedure” (Engeström, 2008 p. 27). Activity theory uses disturbances to focus on inner contradictions within the activity system, which are key to understanding trouble within the organization as well as the potential for innovation and change (Engeström, 2008).

I also conducted six interviews with students who had completed an online course at Big Town within the past two years. Students who responded to the recruitment flier received a free gas card as an incentive for participation. Participants received the card regardless of whether they complete the entire interview. The interviews were conducted within the offices of Big Town Community College, the research field site. I asked them many questions about what it was like to take courses online at Big Town, focusing on the high points and the low points of their experiences with them. As with staff and faculty, I asked about how they define quality in a Web-supported course experience from their point of view. I also asked them whether a Web-supported course could exceed the quality of a face-to-face course. Table 4.2 shows when interviews and observations were conducted across the six months of my fieldwork.
<table>
<thead>
<tr>
<th>Participant</th>
<th>Winter Quarter 2009</th>
<th>Spring Quarter 2009</th>
<th>Summer 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>CL, adjunct faculty member</td>
<td>Interview, observation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GW, faculty member</td>
<td>Interview, observation</td>
<td>Observation</td>
<td>Interview</td>
</tr>
<tr>
<td>AE, instructional designer</td>
<td>Interview, observation</td>
<td>Observation</td>
<td>Interview</td>
</tr>
<tr>
<td>CS, course coordinator</td>
<td>Interview, observation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CM, faculty member</td>
<td>Observation</td>
<td></td>
<td>Interview</td>
</tr>
<tr>
<td>EG, instructional designer</td>
<td>Interview, observation</td>
<td></td>
<td>Interview, observation</td>
</tr>
<tr>
<td>WL, student</td>
<td></td>
<td>Interview</td>
<td></td>
</tr>
<tr>
<td>DF, graphic designer</td>
<td>Interview, observation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RL, distance learning manager</td>
<td>Interview, observation</td>
<td>Observation</td>
<td>Interview</td>
</tr>
<tr>
<td>ND, associate provost</td>
<td></td>
<td>Interview</td>
<td></td>
</tr>
<tr>
<td>DM, student</td>
<td></td>
<td>Interview</td>
<td></td>
</tr>
<tr>
<td>BW, dean of distance learning</td>
<td></td>
<td>Interview</td>
<td></td>
</tr>
<tr>
<td>SK, student</td>
<td></td>
<td>Interview</td>
<td></td>
</tr>
<tr>
<td>HH, student</td>
<td></td>
<td>Interview</td>
<td></td>
</tr>
<tr>
<td>NS, state agency administrator</td>
<td></td>
<td>Interview</td>
<td></td>
</tr>
<tr>
<td>PS, student</td>
<td></td>
<td>Interview</td>
<td></td>
</tr>
<tr>
<td>DP, student</td>
<td></td>
<td>Interview</td>
<td></td>
</tr>
<tr>
<td>Ed Bowen, dean, Dallas, TX</td>
<td></td>
<td>Interview</td>
<td></td>
</tr>
<tr>
<td>John Sener, Quality Matters expert</td>
<td></td>
<td>Interview</td>
<td></td>
</tr>
</tbody>
</table>

Table 4.2 Timeline of interviews and observations for the study  Continued
<table>
<thead>
<tr>
<th>Participant</th>
<th>Winter Quarter 2009</th>
<th>Spring Quarter 2009</th>
<th>Summer 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pam Quinn, distance learning administrator</td>
<td></td>
<td>Interview</td>
<td></td>
</tr>
<tr>
<td>Kay Shattuck, Quality Matters director of research</td>
<td></td>
<td>Interview</td>
<td></td>
</tr>
<tr>
<td>JA, faculty member</td>
<td>Interview</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CR, faculty member</td>
<td></td>
<td>Interview</td>
<td></td>
</tr>
<tr>
<td>LW, faculty member</td>
<td>Interview</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SQ, instructional designer</td>
<td>Interview</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CD, programmer</td>
<td></td>
<td>Interview</td>
<td></td>
</tr>
</tbody>
</table>

**Document Analysis**

Detailed analysis of documents plays a major role in qualitative studies of this kind (Lincoln & Guba, 1985). This project collected documents from the distance education work site related to course design, course quality, team member responsibilities, and university policies, among other topics. I collected documents in both print form and in electronic form from my research interviewees and from distance education program offices. I also collected working drawings, electronic mock-ups, and electronic prototypes of distance education course materials. As with the interview files, all these materials are stored in a secure fashion on the computer of the investigator.
Much of the interaction between staff and faculty at Big Town during Web-supported course development takes place electronically, through email and through the course management system that houses the course under construction. I arranged with the two instructional designers whose courses I studied to share their work email with me. I cast a wide net in regard to collecting these work emails, including everything forwarded to me by the two instructional designers regarding the three courses I was observing. This almost certainly did not include all of the work emails, however, since some passed between faculty members or staff members directly without going through the instructional designers. Even though they requested, on my behalf, that all faculty and staff forward copies of their work emails about the courses to me, I received only a few this way. I attribute this to the high workload faced by these faculty and staff, rather than to reluctance to let me see the email. Many of the emails were titled as specific Web course modules under development. These discussions covered a wide variety of topics, from naming procedures for files, to the kinds of assessments to use, to the status of multimedia and video content being prepared for the courses by the department. Some were strictly logistical, such as schedules of upcoming video shoots. Some of the most valuable content for my examination of quality and the use of a design rubric were module reviews conducted at intervals by the instructional designer. A list of the electronic documents I collected appears as Figure 4.2.
Figure 4.2 A list of electronic documents collected

Continued
Figure 4.2  A list of electronic documents collected
I also arranged to have temporary access to Big Town’s course management system, for the purpose of following the development work and understanding the email conversations I was monitoring. I made screenshots, or freeze-frame recordings, from the course management system to illustrate issues in course design and development. On March 24th, 2009—near the end of the first quarter of work on the course—I completed a series of screenshots from each section of the Introduction to International Business course in development, to serve as a baseline from which to examine changes and improvements as the work went on. Although I would have preferred to create this baseline much earlier in the quarter, gaining access to the course management system took longer than I planned for.

**Data Saturation**

After the first four months of fieldwork spent interviewing staff and faculty about the issues of quality, course design, and the use of the design rubric from Quality Matters, I began to see no new codes or categories emerging on these questions. This suggested that I was reaching data saturation with my informants on these topics. Email document analysis also showed no new themes emerging from the work emails. I confirmed my sense that I had exhausted the topic with my informants when I began to see older themes repeating in my third interview with the distance learning manager in the department. This occurred in early June, and I completed field interviews and research by July 1.
**Data Analysis and Management**

This research project used thematic analysis with an interpretive description as its primary method of investigation. I transcribed all my recorded interviews and work meetings and initially created categories of themes using thematic coding (Corbin & Strauss, 1990). A list of these thematic codes appears as Appendix C. I performed the coding with all the data materials in electronic form—interviews, recorded observations and working meetings, and email documents. I also coded a selected number of printed documents collected in the distance learning department, as well as some archival documents from the department. I used these codes globally to look at the data around all four of my research questions. Two of the thematic codes, “Contradiction” and “Innovation,” were existing categories that activity researchers often use to probe for examples of organizational, or “expansive,” learning at work (Engeström, 1995).

Subsequently, I coded again using interpretive codes to explore causal conditions and perspectives (Miles & Huberman, 1994). I analyzed work conversations and meetings using a priori coding categories, drawing on Engeström’s theory of expansive learning (Engeström et al., 1999), and on his later work about how teams have changed in highly-networked, fluid organizations. Expansive learning emphasizes the central role of contradictions in creating opportunities for innovation to occur, (Engeström, Miettinen, Punamäki-Gitai & International Congress for Research on Activity Theory, 1999, so I coded for *contradictions or deviations as a source of change*. This code, and four more, come from Engeström’s recent research on learning at work in organizations that are
knowledge and innovation-driven. I argue that colleges and universities clearly fit this description. The list of these interpretive codes appears as Appendix D.

I used the code above to identify important issues in the ways in which course developers at Big Town applied the Quality Matters course design rubric to their work – the concern of my first research question. All of the interpretive codes proved useful as I explored my secondary questions, which concern the management model in use to develop Web-supported courses, and the ways in which the Quality Matters approach results in quality courses for the stakeholders involved. I also used these codes to confirm that CHAT theory’s and Engeström’s explanation of learning at work in knowledge-driven organizations were relevant in explaining how learning took place for the course developers at Big Town.

As the research progressed, my codes evolved. I developed the codes around interaction – with faculty, with instructional designers, with students – as I began to see how significant interaction is generally to CHAT theory’s description of learning at work. I also developed codes to describe one of the most significant issues of the case – the increasing pressure on the course developers to produce more courses each year. Stake (2003) suggests developing and revising the issues of the case in an instrumental case study, and the codes evolved as tools to do that.

I wrote the final analysis of the data using the ethnographic approach of creating empirical and analytical claims and justifying them with evidence from the cases (Becker, 1998). As I was doing the fieldwork, I developed a list of the issues of the case, which I revised monthly as the work progressed. I also wrote theoretic memos in a journal, based on patterns I was seeing as I coded interviews and documents. From the
list of issues and the memos, I began to construct claims, as recommended by Stake for a case study (Stake, 1995). I connected each issue I discovered with one of my four research questions. In a case study such as this, issues are closely related to research questions, and can be used as a conceptual tool to address the questions (Stake, 1995).

I used a reflexive journal throughout the research project, which becomes part of the archived data (Mann, 2000). As recommended by Lincoln, I used the journal to examine my emotions relative to the fieldwork setting, my relationships with informants, and issues of status and power between the researcher and the researched (Lincoln, 1995). I wrote in this journal weekly during the first four months of the fieldwork. For example, on March 15th, 2009 I made an entry on the topic of possible discomfort to the informants due to the probing nature of my questioning and the oddness of a stranger asking these questions about people’s activities at work. I used the entries, particularly the theoretic memos, to form claims about the data. I used entries about my relationship with informants to reflect on what they told me in interviews, and especially in member checks, which I describe later in this chapter.

**Validity**

Qualitative research with interpretive frameworks makes special demands in the area of validity and trustworthiness that are beyond the traditional bounds of research in the natural sciences. Yvonna Lincoln refers to these kinds of validity measures as *anti-foundational*, in that they avoid dualistic definitions (Lincoln, 1995). She has proposed four criteria for validity that are generally accepted within the qualitative research community: credibility, transferability, dependability, and confirmability (Lincoln &
Guba, 1985). Within these criteria are strategies for use during data collection and analysis:

- Frequent member checks
- “Thick” description
- Use of a large body of original evidence
- Use of reflexive statements by the researcher during interviews
- Original source materials available for inspection

I used the above strategies in the following ways. I performed four member checks during the fieldwork with four different informants. I did one of the checks after five months, sharing a theoretic memo and a coded transcript of the informant’s interview with them. I performed the other three member checks during my write up of the data, by sharing ten pages of the analysis and asking for written feedback. I used thick description in all of my observations of the department staff and work, as well as in general observations around the Big Town campus. I drew on this description for my write up, and it is archived in my field notes. I collected my total data corpus of twenty-six interviews, and accompanying email, document analysis, and archival research, over a significant period of involvement in the field: six months from beginning to end. It also included video recordings of three course design reviews by instructional designers and faculty members, as well as several work meetings between faculty and staff. I recorded reflexive statements about interviews in my reflexive journal, as previously described. Finally, all the original data, including the codes and coding software used, is archived on the investigator’s computer and available for inspection. The software I used to code the data, Zotero, is freely available as a plug-in to the Firefox Web browser, and can be used
by anyone to create reports on patterns from the original data (Center for History and New Media, 2009).

This study used constant comparison to add rigor and precision to the coding of data and to the development of concepts. Constant comparison of data involves comparing different people; comparing data from individuals at different points in time; comparing incidents; and comparing categories of data (Charmaz, 2000). To ensure trustworthiness, I used persistent observation (Lincoln & Guba, 1985), and triangulation of data and sources (Schwandt, 2001).

**Researcher Reflexivity**

In addition to keeping a reflexive logbook to record my ongoing thoughts about my interaction with faculty and staff and Big Town, I also arranged for a peer debriefer to meet with me to go over the progress of the work and discuss interview transcripts, coding and analysis, alternative interpretations of the data, and any problems I was having in my relationships with my informants. We met three times during the course of the fieldwork. The peer debriefer is familiar with qualitative research methods, and was helpful at many stages, from my early attempts to create activity triangle models of the work to useful feedback on my coding categories and their use. For example, she noticed contradictions in the coded transcript of an interview with a key faculty member over the issue of power and control over the course development work that I had ignored. This helped me as I focused on contradictions related to my secondary research questions around the issues of management and quality – and specifically, the relationship between a faculty member and an instructional designer in this regard. I learned from this
experience how some patterns in the data are obvious to an informed outside observer, while the principal researcher can remain quite oblivious to them.

I also conducted several member checks with one of my key informants, the distance learning manager, by sharing transcripts of interviews I conducted with her, as well as the themes I coded them for. I also shared a theoretic memo about the management model she used, which I identified as a project management model, and asked for her reaction to it. In a face-to-face meeting subsequently requested by the informant, she said she strongly felt I was ‘pigeonholing’ her management model. She lobbied strongly for a different term for categorizing her way of managing. She also shared her fears of being quoted on certain sensitive faculty issues. Her input was extremely valuable to my understanding of activities in the department, and to my own understanding of how I was interpreting her management style, and where I may have misunderstood it. I also performed member checks with both faculty members and the instructional designer developing the Management 101 course under study. I shared an early excerpt from an analysis chapter that identified contradictions and deviations I observed in the course development process and asked them very generally for their feedback. One faculty member and the instructional designer generally confirmed the major contradictions I’d identified in the course of their development work. Their confirmations increase my confidence in the findings of the study. At the same time, confirmation is not as challenging to my writing process as disagreement. Confirmation also begs the question of whether or not informants agree with my analysis because they feel pressure to agree. Although I announced at every opportunity in meeting with participants that I came to Big Town to do research independently, without any invitation
from administrators in the distance learning department, I believe there is still some doubt on that score in the minds of staff whom I’ve interviewed. So there may be some social pressure on informants to agree with my analysis, for fear of repercussions in the department when others read the study. Fear of embarrassment is a well-known research risk of interpretive research with ethnographic interviews, even when pseudonyms are used. (Murphy & Dingwall, 2001). Table 4.3 lists the names and titles of informants who participated in member checks.

<table>
<thead>
<tr>
<th>Participant</th>
<th>Date of Member Check</th>
<th>Question or Issue Discussed</th>
</tr>
</thead>
<tbody>
<tr>
<td>RL, Distance Learning Manager</td>
<td>March 7(^{th}), 2009</td>
<td>My description of management model in place.</td>
</tr>
<tr>
<td>AE, Instructional Designer</td>
<td>October 7(^{th}), 2009</td>
<td>My identification of five basic contradictions in course development.</td>
</tr>
<tr>
<td>GW, Faculty Chair and Course Developer</td>
<td>November 1(^{st}), 2009</td>
<td>My identification of five basic contradictions in course development.</td>
</tr>
<tr>
<td>CL, Adjunct Instructor and Course Developer</td>
<td>November 6(^{th}), 2009</td>
<td>My identification of five basic contradictions in course development.</td>
</tr>
</tbody>
</table>

Table 4.3  Member checks and when they took place

**Ethical Issues**

The ethical concerns for this research are typical of those described in the literature for ethnographic research. Chief among them is the risk of embarrassment for a participant because of a comment they make in an interview (Murphy & Dingwall, 2001).
Even with pseudonyms, it is difficult for a researcher to disguise the identity of participants who all work in the same location, as in the case in this research. I explained these risks to participants when I obtained their informed consent. Generally, they seemed satisfied with my use of pseudonyms for the participants and the institution. One informant, manager RL, has additional concerns about being identified making statements on sensitive issues concerning faculty. My response to her concern was to avoid making a recording of the member check when this issue came up. Others in the department have openly discussed the same issues with me as RL did, so I believe the chances for embarrassment for her are remote.

There were also some technology-oriented ethical issues to be concerned about in the research. All had to do with the department granting me temporary access to their course management system, Angel. Because of the security problems that can occur with any kind of guest or temporary access to a computer system, I was careful to use the access I was given sparingly. I made screenshots of my primary course at two points during the study – once in the first couple of weeks, and once near the end of my fieldwork, some six months later. When I examined course materials in the system, I was very careful not to make any inadvertent changes to the materials – for example, by taking a practice test and recording my score. Even with these precautions, I did once enter some of my user data by mistake. I notified the department manager, and the data was quickly removed from the course management system.
Summary of the Chapter

In this chapter, I’ve described my research philosophy, the research design I created, and the methods I used. The research site, Big Town Community College, is an institution with over 23,000 full and part-time students. It has a history in distance education that spans over a quarter century, and enrolled nearly 5,800 students in at least one Web-supported online class in 2009. My data sources for the project – an instrumental case study – include interviews, observations, document analysis, and electronic work samples from staff and faculty developing three Web-supported courses in 2009. I also conducted interviews with students taking Web-supported courses. I analyzed the data by transcribing recorded interviews and observations and creating categories of themes as thematic coding. I performed the coding with all the data materials in electronic form, using a database tool (Zotero) to make comparisons between categories, individuals, and points in time. I then used interpretive codes borrowed from activity theory to explore the interaction of faculty, instructional designers, and staff as they develop a Web-supported course. I used the tools of grounded theory – constant comparison of the data materials and a reflexive journal – to explore my four research questions relative to the major issues of the case study.

The next two chapters describe my analysis of the data I collected from six months of field study at the research site. Chapter 5 examines the data gathered from the study of faculty and staff developing a single Web-supported course together: Management 101: World Business. This chapter focuses on my primary research question about the use of the Quality Matters design rubric. Chapter 6 takes up my secondary
research questions about management models and quality, and looks at the data from interviews and observations of the management model in place in the distance learning department at Big Town. Finally, it examines the fourth research question, focusing on how Quality Matters results in a quality course as defined by the various stakeholders involved: Faculty, course designers, administrators, and students. It analyzes data relating to how quality improvement in Web-supported courses is taking place at Big Town.
Chapter 5
QUALITY AND THE DESIGN OF MANAGEMENT 101

Overview of the Chapter

In this chapter and the following chapter, I report on the analysis of interviews, observations, and documents gathered over a six month period at the site of my instrumental case study: Big Town Community College in southwestern Ohio. In addressing my four research questions, I’ll explore the ways in which the Quality Matters course design rubric both helps and hinders a group of faculty and staff in their shared effort to develop a Web-supported course (Question 1), as well as the interaction of the management model in use with the Quality Matters approach (Question 2), the perspectives of various stakeholders on the management model (Question 3), and the ways in which the Quality Matters rubric leads to the development of a quality course (Question 4).

The method I used for this study is an instrumental case study, which gathered observations, interviews, documents, and work samples over a six-month period of development of a Web-supported course in business management. My theoretical
framework makes use of an interpretive paradigm and uses activity theory to explain the
dynamics of the course development process at a small community college in
southwestern Ohio. Figure 5.1 shows an activity triangle model of the course
development process within the distance learning department at Big Town Community
College. My four research questions are located in different regions of the triangle as Q1
through Q4. The first question, Q1, concerns the course development process as
experienced by faculty and staff, and takes place in the top triangle of the graphic, a
region in which production of goods or services is the main form of human activity
(Engeström, 1987).

![Diagram of an activity triangle model](image)

Figure 5.1 An activity triangle model of quality management in a Web-supported course
design process with research questions located (Q₁ through Q₄)
Questions Two and Three take place in the lower part of the activity triangle and concern the management of the production process for Web-supported courses. The lower part of the activity triangle is concerned with consumption, distribution, and exchange of goods and services—in this case, Web-supported courses and the division of labor used to develop them. Finally, Question Four is concerned with the ways in which the course development process explored by Question One results in a high quality product. This concerns the outcome of the entire activity system, represented at the top-right of the drawing.

I’ve divided the analysis of my data into two chapters. Chapter 5 addresses my first research question and concerns the course development process. Chapter 6 takes up the remaining three questions and focuses on the management model in use to develop courses, and the quality improvement process in place, known as Quality Matters. I chose to divide the analysis in this way in order to take the qualitative data and explore it thoroughly while avoiding an overly lengthy single chapter. By dividing the analysis in two, I also treat the issues of faculty and staff course development and departmental management in separate chapters, which helps readers focus on and understand two different facets of a complicated human activity: the development of distance learning courses at a small college. The final chapter synthesizes the findings from these two chapters and their implications for course development at the College for the future.

This chapter begins with a short description of the Quality Matters course design rubric as it was being used at Big Town Community College in 2009. Following this is a description of the course under development – a Business Management course within the
Management 101: World Business, like all Web-supported courses being developed at the College, will be taught in both a face-to-face and an online version. Next, I will introduce the two course faculty who are co-developing the course—one the chair of the Management department, and the other, an adjunct instructor. Then, I will describe the course design team charged with creating the course—a group located within the Department of Distance Learning and Instructional Support at Big Town.

The bulk of the chapter describes the interactions of staff designers and faculty as they develop the course over six months, with frequent analysis of portions of my transcribed interviews with them. I use capitalization of words to reflect increased vocal emphasis. At Big Town, course development projects are typically split between two quarters of work. The first quarter normally sees the bulk of staff interaction with faculty members, while the second quarter is used for more intensive development work by the distance learning team—particularly if multimedia or video is required. Management 101 would have no current video needs; all the video for the course had either already been shot or would be acquired by faculty from outside the institution. The course did, however, require graphics development and programming around a series of map activities, which took place primarily in the second quarter of the period. Design work on the course took place between January and June of 2009.

I describe the development work between staff and faculty organized around eight areas of activity covered by the Quality Matters course design rubric: Course Overview and Introduction, Learning Objectives, Assessment and Measurement, Resources and Materials, Learner Engagement, Course Technology, Learner Support, and Accessibility.
I decided to organize the chapter in this way because it reveals the ways in which the design staff and the faculty use the rubric: As a guide or aid to course development used in the background, mostly by the instructional designer. AE, the instructional designer for the course, sums up her approach to using the rubric with faculty this way:

…I think what we’re doing is – they GET this rubric. But I don’t think they’re really paying that much attention to it. What I’m doing is I’M paying attention to it as I’m looking at their modules…But for the most part, this is kind of invisible to them.

The instructional designer’s comment suggests that her process for using the Quality Matters rubric with faculty is an internalized one. I define internalized here in the context of activity theory, which assumes that the minds of people at work, defined as “…environmental, physical, replicated presentations of their common social mind and practices…” (Raeithel, 1996, p. 322) are social phenomena, and “…higher mental functions must be understood as internalized forms of social activity” (Bakhurst, 1997, p. 151). By looking at the design staff’s interaction with faculty around Quality Matters eight areas of interest, I will reveal this activity as design decisions made and negotiated between faculty and staff. I will argue that the Quality Matters rubric functions at Big Town as a mediating psychological tool, used by faculty and staff as they design a course. Vygotsky defines such psychological tools this way: “They are directed toward the mastery or control of behavioral processes – someone else’s or one’s own – just as technical means are directed toward the control of processes of nature” (Vygotsky, 1981, p. 137). It is this invisible activity, as the instructional designer refers to it, that “builds in” the design recommendations of the Quality Matters rubric into a Web-supported course.
I’ll conclude the chapter with a discussion of three contradictions that arise in faculty and staff’s course design work at Big Town. Where and how they arise within an activity system analysis has important implications for how innovation and change occur in the work. This in turn influences the management model the design staff uses – which has implications for quality and for the process of course improvement discussed in Chapter 6.

**The Quality Matters Course Design Rubric: How it Supports and Hinders Web-Supported Course Design at Big Town**

My first research question asks, “To what extent, and in what ways, does the use of the Quality Matters course design rubric support and hinder faculty and staff in the design of a Web-supported course?” This study found numerous instances where the use of course design standards both helped and hindered the design process. In examining these instances, the study uncovered five basic contradictions in the activity system of course design for faculty and staff using the rubric.

In terms of the course design process, the contradictions point to areas of rapid change in Web-supported course design at Big Town. They also identify opportunities for learning at work by the course developers, as well as sites of potential innovation in the design process.

Big Town Community College’s Distance Learning Department uses an early version of the Quality Matters rubric – one developed in 2006 shortly after its creator, University of Maryland Online, completed its initial grant-funded research on quality and distance learning. This version of the rubric is broadly similar to the one distributed to
member institutions today by the Quality Matters organization. It contains eight areas of design recommendations. These eight areas are then further divided into a list of forty sub-standards. The eight broad areas are (MarylandOnline, 2006):

- Course Introduction/Overview
- Learning Objectives
- Assessment and Measurement
- Resources and Materials
- Learner Engagement
- Course Technology
- Learner Support
- Accessibility

Big Town’s involvement with Quality Matters began in 2004, when Distance Learning Director BW sent several staff members to a conference that described its use. Her interest in Quality Matters led her to adopt the design rubric internally as the department’s design standard for Web-supported courses in that same year.

The department’s early use of the standards—more as a collection of best practices to share with faculty than anything else—had an important impact on its technical infrastructure. Department manager RL began designing a course template—a sample formatting for a course with certain design parameters built in—to use with her course management system. In distance learning operations, a course management system is defined as a software system that helps educators manage courses for students (Simonson, 2007). RL decided to incorporate some of the design recommendations from
the Quality Matters rubric directly into her course template. This decision would have wide implications for the use of the Quality Matters design standards with faculty.

In 2004, RL and BW formalized the use of the department’s course template when they created the College’s distance learning course design standards. This document grafted the forty sub-standards of the Quality Matters rubric to a list of five, “Big Town-specific,” standards. One of these mandated that faculty use the course design template supplied by the department when creating a Web-supported course.

More than once in my interviews, the use of the Big Town course design template emerged as an area of tension between faculty and staff. This tension showed up especially for faculty in discussions of quality and course design. GW, Business Department chair and lead faculty member on the Management 101 project, put the quality and template question succinctly as she looked over the assigned scores for the rubric during an interview:

Now, the course uses the Big Town template for – the Big Town template is a three [points]. Well, couldn’t you have a quality course without using the Big Town template?

Another business department faculty member, also an active online teacher, connected the use of the Quality Members standards and the template to a movement on the part of administrators at Big Town to standardize the online course experience for students:

The standardization has set a bar. Whenever you set a bar for people, the natural tendency is to do what? Just meet that bar. SO do I think a lot of the standardization going on is stifling innovation? Creativity? New ideas? New ways of doing things? That whole collaborative process I talked about our department would do? A lot of those things are kind of like, Well, we would really like to standardize our
online courses to do this, this, this, and this. And if you say, Well that’s probably not exactly GREAT for our subject matter at this point. They’ll say, Yeah, but our students really like all our courses to be THE SAME.

The course template in use at Big Town is a concrete example of the use of the Quality Matters rubric as a mediating tool in the course development process. As analysis of the design of Management 101 will show, course designers and faculty use both the rubric and the template constructed from it as a tool to guide or control their behavior (Engeström, 2008). But as department manager RL’s description of the history of the rubric and the template at Big Town made clear, the Quality Matters rubric is more than a guiding tool made of words and symbols. It has literally been “built in” to the course technology used to create courses at the College.

Although the Quality Matters project was begun in Maryland as a faculty-centered, peer review-oriented exercise, its use at Big Town puts instructional designers, not faculty, in charge of reviewing courses. The department manager asks each instructional designer to complete a quality review of the courses they develop during a particular quarter. They use the quality rubric as a scoring sheet to evaluate the course. If it meets certain criteria in particular areas of the rubric, the course meets Quality Matter’s definition of an effective course (Maryland Online, 2006).

By giving the instructional designers the responsibility of doing the quality review at the end of the design cycle, the department managers have made the instructional designers the gatekeepers for quality in the courses production process. As AE previously described her working style, “…I’m paying attention to it as I’m looking at their modules.” Big Town is not alone in their tasking of instructional designers to do course
reviews using the rubric. In an interview, John Sener, a Quality Matters advisory board member and evaluator for the grant that initially funded the creation of the rubric, identified this as a trend at other campuses using the rubric (J. Sener, personal communication, June 23, 2009). Importantly, though, it marks a shift away from the faculty-centered roots of the project.

**Creating Management 101: The First Meeting With Faculty**

The global dimensions of business; an overview of theories and institutions of trade, investment, and management emphasizing the managerial perspective on issues arising from international business and global operations. 3 credit hours.


In their first meeting together to plan the online version of the course, AE queried GW, the department chair, for information about the kinds of students who currently take the online class. GW explained that the course typically caters to majors in Business Management at the College, who are getting their Associate Arts and Science degree. She reported she generally has forty-four students per quarter – half in a daytime class and half in an evening class. The age range tends to be wide: eighteen to forty-year olds. In the evening session, almost all of the students are working adults.

We met in AE’s rather small (for three people plus a researcher with a recorder) office in the basement of Building 14 – one of twenty buildings known only by their numbers in the sprawling mega structure that houses Big Town Community College. AE
is a white woman in her mid-to-late forties. She conducted the meeting with the two faculty members for about an hour, going over introductions and referencing documents they had received in a faculty orientation. These included the Big Town Community Colleges Course Design Standards document and a timeline for development of the course. She then spent the majority of the time querying faculty about course content they found difficult to teach, about their anticipated needs for multimedia and video, and about their approach to teaching using case studies. AE ended the meeting by suggesting a future date to discuss specific needs for multimedia for Management 101 in more detail.

**Web-Supported Course Design at Big Town**

…the word that always comes to my mind is collaborative, so instead of project management, I think we have a team-based collaborative approach to course development. Those are the words that I use that capture, I think, for me the philosophy of the model.

(RL, Distance Learning Manager, personal communication, February 4, 2009)

Big Town Community College has had an active distance learning program since 1980, when it began producing instructional television courses, or telecourses (H.L., n.d.). This effort became known as “TV Big Town,” and at its height generated 7,500 enrollments annually.

According to a timeline produced by Big Town’s archivist, Web-supported course program production began in 1997 (Big Town Community College, 2004). A position paper on distance learning in 2003 credited distance learning course enrollment as

Big Town’s Distance Learning is led by BW, a director at the rank of Dean. Under her, two managers direct the activities that lead to Web-supported courses: A manager of distance learning and a manager of multimedia services. RL, the manager of distance learning, directs the work of three full-time instructional designers. She also oversees a number of full and part-time creative staff, including a full-time programmer specialized in the multimedia development technologies known as Flash and Flex; a full-time graphic designer; a part-time writer/producer; three part-time course coordinators; and two part-time generalists.

GD, the manager of multimedia development, supports the creation of video for courses, and oversees a small video studio and location production unit that are co-located with the distance learning department.

When I arrived to begin my research in January 2009, RL was just beginning an experiment with a new structure for her collaborative distance learning team. In the past, each course under development was overseen by a single instructional designer, who partnered with faculty to create the course. A Web-support specialist helped the instructional designer on an as-needed basis. This year, however, RL decided to assign both an instructional designer and a course coordinator – a new job description – to each course. The course coordinator’s role would be to take over many of the day-to-day project management activities performed by the instructional designer, freeing up the instructional designer to spend more of their time “designing.” RL developed this new team role as a response to growing pressure from the College to produce more online
courses in 2009 – seventy-two courses, to be specific, a doubling of the pace of production in 2008. As I spent more and more time interviewing and observing at the College, the issue of workload - and how to respond to it - grew to become a major issue of the case study.

AE is the instructional designer assigned to develop the Management 101 course. She came to Big Town a little over two years ago, with a background in video production and a masters degree in technology and education. AE had taught a photography class at Big Town in the past, as well as worked as an online curriculum developer for an Ohio high school technical program called Tech Prep.

CS is the course coordinator assigned to Management 101. She came to Big Town in 2004, bringing with her a background in technical writing and Web site development. In an interview I conducted with her in 2009, CS anticipated doing many technical tasks in her new role as course coordinator, related to creating an online course and loading it into the college-wide course management system known as Angel. The tasks include:

• Requesting and prepping Angel shells and repositories;
• Uploading template pages into the Angel shell;
• Project scheduling;
• Media development;
• Project management.

A graphic artist is also available to assist the Management 101 course project. DF comes from a print design background.
This section of the chapter traces the six-month course development process as I observed it take place among the principal actors—staff and faculty. The individual section headings that follow represent the eight topical areas included in the Quality Matters course design rubric, which are the official quality standards for course development at Big Town in 2009.

In each topical area, I examined my data—drawn from interviews, recorded observations, field notes, and documents such as emails between the team and faculty members—for contradictions and deviations from the expected course development path. Activity theory associates contradictions and deviations with the cycle of learning work groups experience as they develop a project. These events, although stressful for the working team, represent opportunities according to activity theory for learning within the work organization. Activity theory also credits contradictions with stimulating innovative solutions to problems at work (Engeström, 2008).

Table 5.1 below maps the contradictions and deviations in my data, as reported by course design participants, within the eight topical areas of the Quality Matters design rubric:
Table 5.1  Contradictions and deviations for faculty and staff  (lightning bolts indicate a contradiction is present; a dash indicates no contradiction exists.)

= Contradiction is present
– = No contradiction exists

**Course Introduction/Overview: Standard I**

Beginnings are important. Big Town’s Distance Learning Department expressed this view as early as 2003 in a brochure for faculty, where they began a description of a re-designed course template with a graphic of a home page and the heading, “First impressions are important” (L.R., 2003).

Quality Matters echoes this sentiment with a list of five sub-standards related to the course overview and introduction (MarylandOnline, 2006):

I.1: Navigational instructions make the organization of the course easy to understand;
I.2: A statement introduces the student to the course and to the structure of the student learning and, in the case of a hybrid course, clarifies the relationship between the face-to-face and online components;

I.3: Etiquette expectations with regard to discussions, email, and other forms of communication are clearly stated;

I.4: The self-introduction by the instructor is appropriate and available online;

I.5: Students are requested to introduce themselves to the class;

I.6: Minimum technology requirements, minimum student skills, and, if applicable, prerequisite knowledge in the discipline are clearly stated. (p. 1)

The Course Introduction and Overview section of a Big Town course includes a course home page, a syllabus, a calendar, and a resources folder. The course home page includes much of the housekeeping information for the course in a section titled, “The First Day: Everything You Need To Know.” This section includes documents covering the following:

- International Business Course Overview
- Expectations – Yours and Mine
- Team Project Instructions
- Module Quizzes – What they are and how they are graded
- Discussion Forums – What they are and how they are graded
- Map Quizzes – What they are and how they are graded

Because the course syllabus is considered a key element of the course introduction, AE, the instructional designer, brought it up early in her first meeting with the two faculty members. In screenshots I made of the Management 101 syllabus, taken in March of 2009 when the course was in an early stage of production, the use of the Big
Town template for the course structure is clearly visible: The syllabus appears much like a form on the Web that needs to be filled out. The screenshot appears below as Figure 5.2:

![Figure 5.2 A partial screen shot from the syllabus template for Management 101]

The template queries faculty for information about their course, but also provides a great deal of information and links of its own—to other information about Big Town’s student support services, for example.

When I began the research, I frequently heard staff in the distance learning department use the words “quality standards,” “Angel,” and “template” almost interchangeably. Not until I examined the data more closely- quality standard by quality standard- did I begin to grasp the significance of the course template to the overall quality effort in the department. This interview passage with AE addresses the template use with a course syllabus specifically:
If we go back to the syllabus, the learner support items are hardwired into our syllabus, which is why we really insist on people using our template page. Because it’s got all the testing information, CC policies. All that kind of thing. So that’s all there in that learner [introduction].

GREENBERG: You say it’s hardwired? What do you mean?

AE: Yeah. We provide a template…What we do is we give them a blank version of this. And they fill out. So every one of these is pre-populated with this information.

Another instructional designer in the department, EG, reaffirms the connection between the Big Town course template and meeting quality standards:

The first part, the first standard which is course overview and introduction, this will be met by most of our courses because of our template design. These are the required component[s].

The distance learning department’s use of a technological template tied to quality standards has not always drawn universal praise from faculty, however. Dean of Distance Learning BW recalled an earlier era of Web-supported course development at Big Town when faculty did much of their course design independently:

But it was more of the wild west because we had a lot of courses that were self developed by faculty and didn’t align… didn’t use the template and when we first started with it… well, we had a template since about ’99, ever since we started with Web CT pretty much, and faculty felt that their academic freedom was being violated because they were being forced to use this (laughing) standard template and they couldn’t be creative.

Faculty members continue to have questions about the use of the template in course development. GW, in reviewing the quality standards during an interview, noted the relatively high point value assigned to the use of the template and wondered if a
course could even meet the quality standards if it didn’t use the template. AE, the
instructional designer, reported a mix of views from faculty about using the course
template:

You know a college environment, in certain disciplines, people are free thinkers. I’ve had some people say – I literally had somebody tell me once – that I was tying his hands behind his back. But once he developed – and he saw how it worked. And he saw that it worked with the students. He has become a big proponent of it and
developed another class. Now he knows why it’s all that way. But for anyone who developed ten years ago, and
used their own template and made up their own kinds of stuff – it’s a real shock to them. For people who have NEVER done it before, it’s probably a relief. Because it gives them a structure.

Another contradiction emerged for one faculty member, GW, over the issue of
where to place a student introduction activity in Management 101. In AE’s review of
progress on the course, she repeatedly found the activity misplaced—according to the
standards—in the second week’s list of activities rather than in the first week. Although a
seemingly minor point of course drafting and editing, AE remarked on the placement
frequently in meetings and emails. This excerpt, from a meeting between CL and AE to
go over the use of the Angel system, illustrates how AE functions as a gatekeeper of the
quality standards:

AE: OK. And so I got kinda confused when I saw that, and I saw what the lesson looked like. (AE is on the “Modules & Activities” page) Because generally speaking, we always have – you’ve gotta introduce yourself.

CL: I’ve got that – introduce yourself to the team. I’ve laid out all of the modules, and then D. and I split them all up. And basically I said, OK, you’re modules, you’re doing whatever you want; with my modules, I’ll do whatever I want as far as activities. But I don’t think as I recall our
conversation that she was planning on doing an introduce yourself.

AE: It’s gotta be done. And if she doesn’t put it in, then I will. (laughs)

After repeated mentions of the problem to GW, AE finally moved the activity into the required module herself. Although seemingly trivial, the conflict was suggestive of a larger tension in the group: Who is calling the shots in the design process – the instructional design team or the faculty? The conflict emerges in this excerpt from the first design meeting:

GW: And we may want to tweak some of these topics.
N: To be more specific with the modules.
GW: Uh-hum. That’s exactly what I’m thinking.
N: I can do that.
AE: If you want to keep - you guys can keep.
GW: I can do what I want (laughter)
AE: Whoa! You all can keep that if you want. I just pulled that right off of the catalog, off of the course descriptions.

Although my coding for tension found remarkably few instances of it in transcripts of design meetings with faculty and in emails about course development, the above conversation was one. In another interview, GW elaborated on some of the tensions building for faculty at Big Town that connect with distance learning:

We’re undergoing a culture shift at Big Town right now… Eight years ago, nine years ago when I was hired, as a faculty member you pretty much were a cowboy, you taught your classes, you put in the class what you wanted to put in the class. You… felt like you were doing a good job or not. Online…also was a little bit looser, you know? But now…because of state mandates and other things…we have to have outcomes assessed and have to prove that we’re teaching people and…faculty are really rebelling. They… are losing their academic freedom and they don’t
like that very much... And I think the online is a... piece of that culture change.

A colleague of GW’s in the Business Management department, CR, took a long view of the conflicts between faculty developing courses and the distance learning department:

CR: … I think it’s a natural thing that’s going on. When we first started, like I mentioned earlier – we did everything? And I think the pushback from that is, No, no, no. You guys are going in too many different directions; let’s STANDARDIZE everything. So I think that’s a natural thing to happen, and I think that over time we’re going to find out that what WE were doing isn’t great. What THEYRE doing isn’t great. I think the next natural thing is, You know what? Maybe we need to meet somewhere in the middle. And I can see that happening. I really can. But distance learning has received the power that they have received in the last couple of years. So it’s relatively new.

Helping and Hindering

My first research question asks to what extent, and in what ways, the Quality Matters course design rubric helps or hinders faculty and staff in their shared effort to design a Web-supported course. To approach this question, I use activity theory to create a model of Web-supported course design. That model appears below in activity theory’s characteristic triangle diagram (Engeström, 1987) as Figure 5.3.
Figure 5.3 An activity triangle model of quality management in a Web-supported course design process

A Web-supported course provides the object of the activity, which is pursued by the subjects: In this case, the faculty and staff course designers. In the process, subjects, use mediating tools and signs (see top-most part of the triangle). The subjects also function according to a culturally defined body of rules (see left-most part of the triangle), within a larger community (bottom of triangle), and using a particular division of labor (right-most side of triangle).

I argue that the Quality Matters rubric functions at Big Town as a mediating tool – specifically a mediating sign – at the disposal of faculty and staff as they design the course. Mediating signs, which appear in the top-most part of the activity triangle model of course development, fit Vygotsky’s definition of psychological tools, because in his words, “They are directed toward the mastery or control of behavioral processes –
someone else’s or one’s own – just as technical means are directed toward the control of processes of nature” (Vygotsky, 1981, p. 137) Engeström adds to this characterization of psychological tools: “The essence of psychological tools is that they are originally instruments for co-operative, communicative and self-conscious shaping and controlling of the procedures of using and making technical tools…” (Engeström, 2007, p. 57). If we accept the description of a Web-supported course as a technical tool — after all, at its technical core, it is a block of computer code — then Engeström’s description of a psychological tool can also describe the Quality Matters design rubric.

Frequently in my interviews, faculty and staff refer to their use of the rubric in terms very similar to the above; i.e., as something that helps them control their behavior. GW talks about the rubric as “…useful in the fact that it helps as a reminder to me of how to make the class and instructions clear to students.” CS, course coordinator, describes the rubric as “…a good way to kind of analyze the course, I mean, see if it’s meeting certain guidelines.” Faculty member CL sees similarities between the rubric and her own professional standards: “These are things that we are expected – at least I hold myself to these – in a face-to-face class.”

RL sees the rubric as having lasting value to her work because of its research orientation:

I have always loved the origin of the standards – research based. And I think that was a huge contribution to our field. When everybody and his brother could argue til kingdom come on what we think a good course is. And so I loved that contribution to the field. TO make a body of guidelines, principles, based on what the research shows. SO there’s no downside. No downside that I can think of.
Instructional designer AE speaks more specifically to the use of the Quality Matters standards as a lever with faculty who are resistant to her design suggestions:

Or I can always fall back on the quality standards document. Which is the big gun – to be able to say, Hey, according to the College’s quality standards, we really need to have x, y, z.

In summary, as a support for making decisions about the design of their course introduction and overview, both faculty and staff creating Management 101 pointed out the rubric’s usefulness. However, some staff also saw constraints with its use. CS, the course coordinator, saw a possible downside to the rubric specifically around the course introduction, Big Town’s mandate of the use of its template, and the resulting similarity of courses to each other:

I mean this is just my opinion (laughs)…Sometimes there’s an advantage to having courses look different because if a student is taking three or four courses and they all look the same, then it may be harder for them to distinguish or connect the look in their mind with what they’re actually studying. So…like I said there’s… pros and cons.

**Learning Objectives: Standard II**

Quality Matters uses five sub-standards to describe its recommendations for the use of learning objectives in a Web-supported course (MarylandOnline, 2006):

II.1: The course learning objectives describe outcomes that are measurable;

II.2: The module/unit learning objectives describe outcomes that are measurable and consistent with the course-level objectives (MarylandOnline, 2006);

II.3: The learning objectives are stated clearly and written from the students’ perspective;

II.4: Instructions to students on how to meet the learning objectives are adequate and stated clearly;
II.5: The learning objectives address content mastery, critical thinking skills, and core learning skills. (p. 1)

A screenshot from the Learning Objectives section of Management 101 appears below as Figure 5.4:

![Figure 5.4](Module%2003%20-%20Introduction%20and%20Objectives.png)

Faculty in the Business Management department at Big Town were familiar with the use of course objectives for designing courses. In an interview, GW, Chair of the department, mentioned they are part of the master syllabus for each of their courses:

“…We’ve already set the course objectives, so the course – the online course – has to match and meet those course objectives.”

But the learning objectives the faculty member brings with them to the distance learning department are not sacrosanct. AE, in the course of reviewing the learning objectives for Module 2: Economic, Legal, Political, and Technological Forces reported
making changes she made to them. In my subsequent interview with AE, I asked her about the changes she made to the Management 101 learning objectives, specifically removing one objective, and this was her response:

Oh, that’s a typical Bloom’s issue. And that’s a part of the quality standards: objectives need to be measurable. Generally speaking, most faculty don’t have a lot of experience writing objectives. So a lot of times you get, “understand,” as a typical one that. And I’ll say, how are you measuring that? How do you know that I understand?

AE’s comment reflects the emphasis in the Quality Matters rubric on creating measurable learning objectives that are aligned with four specific areas of the course: Assessment and Measurement, Resources and Materials, Learner Interaction, and Course Technology. Quality Matters workshop leaders define alignment this way: “Critical course components—Learning Objectives (II), Assessment and Measurement (III), Resources and Materials (IV), Learner Engagement (V), and Course Technology (VI)—work together to ensure that students achieve the desired learning outcomes” (MarylandOnline, 2006).

Of all the eight sections of the rubric, faculty member GW recognizes the learning objectives section as the most familiar and relevant to her perspective as a professor designing a course. However, she makes a distinction between parts of the rubric that relate to what she calls “academic quality” and parts that are more related to instructional design:

…For example, navigational instructions make the organization course easy to understand. Well, if that weren’t in there, I might forget to put directions about how to navigate the course. Now, does that make a quality course to me? No, it doesn’t make a quality course… it makes a more… navigable course, an easier to access
course for students. So, I guess in a way that’s quality ‘cause you want to make it easy for your customer to know what you’re doing. But it’s not quality as an academic quality.

GW’s distinction between academic quality in a course and other kinds of quality made for a basic contradiction in her use of the rubric as she worked with the Big Town staff. GW felt that many aspects of the rubric were beyond her expertise as a professor, falling into the realm of overall instructional design. Yet the department holds her responsible for meeting all the quality standards. Here, she reflects in an interview on design and criteria she feels beyond her purview: so-called “Priority One” guidelines for making courses accessible to students with disabilities:

Well… I don’t know what priority one guidelines are so that’s an instructional designer issue, you know, to me. So that’s why you have the partnership… you’ll hear faculty say I don’t want to know all of the detail, uh, I’m here to teach, I’m not here to put… an online class together and know all the color charts and you know, all the stuff that you have to do to…we just want to teach. So, it’s nice to have an instructional designer but then they need you to be responsible. If we’re gonna have a Quality Matters than they need to be responsible for the pieces that are clearly something that I don’t know about, so you need a good partner.

For GW, the contradiction surrounding developing a course with quality standards runs much deeper than being expected to be familiar with an instructional designer’s terminology. It goes to the core of her reasons for being a professor:

I was not hired to develop courses online and… and I don’t really feel it’s my job to develop courses online but, because I see the need then that’s why we do it. Um, if you really, you know, if you’d really ask faculty what they think about this whole online thing, they’re gonna tell you that’s not what they wanted to do and… majority, that’s not what they wanted to do and they don’t want to develop
courses online. So why are you doing it? Because my Dean has told me that we need to do it.

For RL, a contradiction emerged around the Quality Matters sub-standard 11.1, which calls for course outcomes that are measurable. RL questions whether it is possible to measure all the outcomes of a college course:

But a speed bump (laughs) is, if this is the set of all possible learning, is it true that all of that is measurable and observable? Which is the requirement and assumption of the measurement of learning, and measuring learning outcomes etcetera. And I’m all for that, for the learning that CAN be measured, and can be observed. Yea! Let’s measure that and observe it and report it. But some part of me keeps saying, I think there’s a subset of learning that’s important that can’t be measured and observed. And what do we do with that? It seems like that would be a dangerous sacrifice for society if we said, no we don’t care about that because it’s not measurable or observable. So that is the dilemma that I struggle with.

RL’s comment suggests her view of the purpose of higher education is a broad one – embracing purposes commonly cited by proponents of a liberal education: to develop well-rounded citizens; to cultivate an appreciation for beauty; to search for truth.

Ronald Barnett, a researcher of higher education quality in England, reminds us that it is a mistake to consider faculty and staff’s definitions of quality in higher education without considering their views of the purposes of higher education (Barnett, 1992). Of all the faculty and staff I interviewed, only RL and an associate provost, ND, subscribed to a broad definition of purpose and quality in higher education. When I asked faculty about their definitions of quality and purpose in higher education, they unanimously emphasized the importance of students finding careers and, thus, “success” in society.
Assessment and Measurement: Standard III

Quality Matters breaks the area of assessment and measurement into these five sub-standards (MarylandOnline, 2006):

III.1: The types of assessments selected measure the stated learning objectives and are consistent with course activities and resources;

III.2: The course grading policy is stated clearly;

III.3: Specific and descriptive criteria are provided for the evaluation of students’ work and participation;

III.4: The assessment instruments selected are sequenced, varied, and appropriate to the content being assessed

III.5: “Self-check” or practice types of assignments are provided for timely student feedback. (p. 1)

AE asked her faculty members early in the process about assessments they planned to use in the course. She asked them basic questions: Will you give a final exam? Will you use any low-stakes quizzes? Then, she focused in on their descriptions of several activities in the course—case studies using student teams, and writing assignments—asking them specific questions about rubrics they planned to use, and ways of featuring examples of exemplary student writing.

In a subsequent interview, JT told me that the answers she gets to questions about assessment are suggestive of how the relationship with faculty will proceed:

You can usually tell when I meet with somebody. And I ask them what kinds of assessments they’re using in class. And they tell me, Quizzes. And I ask have you ever thought of any alternative methods of doing that. And I had one person tell me once, Well we could use true and false instead of multiple choice. And that was their idea of alternative assessment. So I know that’s going to be a real different situation then when I talk to somebody who might say, I use case studies, I team people together. You know, that’s going to be a different kind of course.
Standard III.4 calls for varied assessments, and this is something AE listened for above and stressed in her approach to designing a Web-supported course. In her first meeting with faculty, AE asked them about teaching difficult content in the class, and potential “sticking points” for students. This led to a discussion of the importance of students’ learning about place names in different parts of the world, and a low-stakes assessment for this: A map quiz. During the course development process, AE’s designers wrestled with technical issues around gathering the scores from separate map quiz software, and automatically posting them to Angel’s grade book. AE eventually dropped this approach, due to technical problems, and chose to develop the map quiz within the Angel environment.

This assessment activity was the only part of the course development process when AE relied on DF, the graphic designer, for assistance. DF oversaw the customizing of regional world maps for the quiz. A screen shot from the map assessment appears below as Figure 5.5:
Along with her emphasis on alternative and varied assessments, AE also queried faculty early on about their use of rubrics. She was not disappointed: Both faculty members planned on using detailed rubrics for most of their graded assignments. When AE did her Quality Matters evaluation of Management 101, the use of rubrics scored well, as did the descriptions of grading policies. AE remarked on it in a discussion of a team project from the course:

They have a team discussion. They do a really nice job. Refer to the calendar due date, ‘cause that’s going to
change every quarter. What are their responsibilities. 
Exactly what this paper has to cover. I mean, very very 
detailed with all of that. And how it’s going to be 
evaluated. Without going through every assessment, it’s 
pretty much like that throughout the whole course.

Assessment and measurement are topics that register clearly on the radar of 
distance learning administrators and provosts. They are aware that Quality Matters 
emphasizes alignment of the various elements in a course – and particularly, of course 
objectives with assessments. Dean of Distance Learning BW points out the impact that 
learning Quality Matters instructional design techniques, such as aligning assessments to 
learning objectives, can have on improving how faculty teach:

Well it helps, I think it helps them in developing their 
course so they know what’s required in an online course if 
they’ve never taught online or developed an online course 
before. They know that common navigation is important, 
that student-to-student, faculty to student interaction is 
important, that the alignment of their content, their learning 
activities and their assessment is important. And so it does 
emphasize instructional design and many faculty in higher 
ed do not have a background in instructional design and 
don’t necessarily test what they teach, or teach what they 
test, so, in many cases this helps them become better 
classroom teachers (laughs).

Helping and Hindering

I recorded no contractions or deviations around the topic of assessment and 
measurement, with the important exception of RL, the distance learning manager. RL 
made this distinction about assessment and timeframe. As with measurable outcomes, RL 
saw a contradiction in assessment of learning over time. She used an example of a 
citizenship course here:

What if a citizenship course – I’m exaggerating just to 
make a point – but what if evidence of learning wasn’t
observable until ten years later? Would our current measurement look at that and say, Well that’s not working! You know. We should get rid of that citizenship class. I’m concerned about the loss of – in the rush for accountability – which I am part of the rush, actually! (laughs) I’m concerned that we don’t throw the baby out with the bath water. What do we do with learning outcomes that are vital to citizens in a global world that aren’t easily measured?

Most faculty and staff found the Quality Matters standards on assessment and measurement helpful. GW, in particular, seemed to view a structured approach to creating assessments as a way to overcome weaknesses inherent in teaching online:

And it’s very difficult to… to teach students, especially online, what they need to do to be successful in a college environment as well as how to be successful in… a higher level thinking class. And some of them have never even had a business class before. So now they’re in international business ’cause they thought it should be fun… it’s not fun. We’re talking about exchange rates and, you know, World Bank issues and a little bit higher level thought process and they’re not ready to be there. So you take that in a face to face environment it’s difficult. But then you put it in an online environment and I think it’s gonna be even more difficult um, to make sure that students are…able to grasp the material in a meaningful way and not be frustrated by the process.

**Resources and Materials: Standard IV**

The Resources and Materials section of the standards has five sub-standards (MarylandOnline, 2006):

IV.1: The instructional materials support the stated learning objectives (MarylandOnline, 2006);

IV.2: The instructional materials have sufficient breadth, depth, and currency for the student to learn the subject;

IV.3: The purpose of each course element is explained;

IV.4: The instructional materials are logically sequenced and integrated;
IV.5: All resources and materials used in the course are appropriately cited. (p. 1)

AE points out in her course review interview with me that this area of the standards was one of the strong suits of Management 101 because of the imaginative sources for content used: Their variety and their thoughtful use in the course design. AE emphasized especially the Quality Matters IV.4 standard: “The instructional materials are logically sequenced and integrated.” She used this example of a video interview on doing business internationally:

They have these great interviews, video interviews, about international business with an actual businessman. He talks about his own experiences. And this is tied in – what I really like about this is that (gestures to a link in the course) A lot of times people have links to the courses and they’ll be optional. But this is tied to the online discussion, so the student really needs to watch these.

The video links in Management 101 appear below as Table 5.2, with their sources noted:

<table>
<thead>
<tr>
<th>Video Link</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>“The Fall of the Berlin Wall”</td>
<td>YouTube – ABC News</td>
</tr>
<tr>
<td>“Ruling Politics”</td>
<td>Wimp.com</td>
</tr>
<tr>
<td>“The Other Side of Outsourcing”</td>
<td>YouTube-Discovery</td>
</tr>
<tr>
<td>“Traveling for Treatment”</td>
<td>PBS</td>
</tr>
<tr>
<td>“Paul Rogers Interview”</td>
<td>Big Town’s Multimedia Department</td>
</tr>
<tr>
<td>Introduction</td>
<td></td>
</tr>
<tr>
<td>Globalization</td>
<td></td>
</tr>
<tr>
<td>Culture</td>
<td></td>
</tr>
<tr>
<td>Eating Guidelines/Politeness</td>
<td></td>
</tr>
<tr>
<td>Social Responsibility</td>
<td></td>
</tr>
<tr>
<td>Business Practices</td>
<td></td>
</tr>
</tbody>
</table>

Table 5.2 Video content and its sources in Management 101  Continued
When added up, the running times of the above list of videos totals 129 minutes—over two hours. Of this, twenty-two minutes was locally produced at Big Town. In other words, roughly seventeen percent of the video was locally produced.

At a dollar figure of one thousand dollars per finished minute—laughably conservative for internationally-produced content—this course would demand a six-figure budget for video production alone. Clearly, the course developers’ ability to acquire video from publishers (McGraw-Hill Irwin, their textbook publisher) or link to video in collections like YouTube—for free—makes the extensive use of video possible in this course. A screenshot from a lesson module that uses YouTube as a source of video appears below as Figure 5.6:
Figure 5.6  A screenshot from Module 3 of Management 101, showing use of YouTube video

Historically, the distance learning department puts a high value on video use for instruction. This accounts for AE’s emphasis on video usage in satisfying this quality standard. AE, Associate Provost, noted that Big Town was one of the first community colleges in the country to offer video-based courses to students.

Clearly, to produce the quantity of video required for this course would have been fiscally impossible. Technological change – particularly search engine technology and video collections like YouTube – has made it possible for faculty and course designers at a small institution to make heavy use of video for instruction.

There is another important trend at work in terms of use of video by the faculty: They found it all themselves. AE explains the significance in light of the department’s heavy workload:
Now that we’re doing more and more courses, and we have the same amount of resources in the department, it’s become more and more critical to find good outside things. And really these folks did that pretty much on their own.

**Helping and Hindering**

In my interviews, there was near-agreement by faculty and staff on the importance of providing high quality, varied instructional resources and materials. The distance learning department’s history of success in creating and effectively using video for instruction appears to help the team convince faculty of its importance within the course. And faculty readily found video that supported their learning objectives, primarily from online video collections.

The subject matter—international business—added impetus of its own for faculty and staff to find compelling content from cultures other than from North America. AE’s comments in her review of the course reveal this view: “The course does an excellent job conveying the real world implications and challenges of international business.”

**Learner Engagement: Standard V**

There are five sub-standards for Learner Engagement (MarylandOnline, 2006):

V.1: The learning activities promote the achievement of stated learning objectives;

V.2: Learning activities foster instructor-student, content-student, and if appropriate to this course, student-student interaction;

V.3: Clear standards are set for instructor response and availability (turnaround time for email, grade posting, etc.);

V.4: The requirements for course interaction are clearly articulated;
Interaction is something the instructional designer, AE, emphasized when she did her course review of Management 101. She pointed to the use of collaborative activities such as team projects and case studies – which feature student-to-student interaction. She also pointed out individual activities, such as reading assignments on current events, which foster content-to-student activities.

In her course review, AE noted it contained student-to-student and content-to-student interaction. She made little comment on a third type of interaction mentioned in the standards – student-to-instructor – even though the course contains these interactions in the form of writing assignments with instructor feedback. Quality Matters calls for “clear standards” around this interaction, in the form of “turnaround time for email, grade posting, etc.” This creates a contradiction for GW in terms of her personal workload for online classes:

And I try to put boundaries on it but I haven’t had a vacation in eight years where I haven’t had to grade papers because it’s been online teaching. And I’ve chosen to teach online during the summer because if I didn’t, the class wouldn’t run. And I thought it was important to accommodate the students so I ran my class. And I understand faculty who say I don’t… that’s not the life I want, you know,

**Helping and Hindering**

Of the faculty and staff developing Management 101, only GW mentioned the burden for interacting with online students as a barrier to developing a quality course. Staff was remarkably silent on this issue. It’s possible that the design staff steer away
from promoting this standard from the rubric, perhaps with knowledge of its impact on faculty workload.

Administrators higher up in the College were acutely aware of this issue, however. When I asked Associate Provost ND what he felt would be the biggest issues in the next five years for distance education at the campus, he replied: “Faculty workload.”

**Course Technology: Standard VI**

Quality Matters has six sub-standards for Course Technology (MarylandOnline, 2006):

VI.1: The tools and media support the learning objectives, and are appropriately chosen to deliver the content of the course;

VI.2: The tools and media enhance student interactivity and guide the student to become a more active learner;

VI.3: Technologies required for this course are either provided or easily downloadable;

VI.4: The course components are compatible with existing standards of delivery modes;

VI.5: Instructions on how to access resources at a distance are sufficient and easy to understand;

VI.6: The course design takes full advantage of available tools and media. (p. 1)

AE’s description of Management 101’s use of course technology in her quality review is spare – perhaps because its use is already much in evidence within the earlier areas of the design rubric. Here is what she said in her review:

Tools and Media. (AE mouses over the Technology section of the standards screen) They enhance it. There’s a lot of video in it. The instructions on how to access everything are clear. They’ve taken advantage of all the tools. Clear description of things, how to do things.
The use of technology is a fascinating area of contradiction for faculty member GW. The course design team, from their very first meeting with faculty members GW and CL, emphasized tools and technology to “enhance” the course. Their arsenal of tools for doing this includes:

- Tools for creating practice activities (“Study Mate”);
- Tools for enhancing visualization of text or still images (“Flipbooks”);
- Tools for animating or visualizing abstract concepts (“Flash” animation);
- Tools for dramatizing or visualizing human interactions or activities (Video production).

Initially, faculty and team members discussed the use of a “Flipbook” to animate map quizzes, but they later dropped that approach. The course ended up using two of the four technologies above: Study Mate practices activities (flash cards, word puzzles and the like) and video. AE, in her first meeting with faculty, referred to these tools as methods for making content “pop” for students; i.e., be more lively and engaging.

In her interviews with me, GW is appreciative of the need to add context that “pops” to Web-supported courses. This is required, after all, but the Quality Matters standards around learner engagement and course technology. But she also sees a contradiction in its use:

I guess I’ve never felt that I was in the business of entertaining students. Although you know obviously if there are things that make it easier to learn, or more visually attractive. Because, of course, there’s different types of learners, right? So it’s good to incorporate all of that different learning style option into the class. But at
some point you have to present the material – and not all the material is exciting. So, learn it anyway!

Greenberg: For you, is that the balance that you go for, to make a high quality course? Is balancing those elements?

GW: Um-hm… I guess I come from the old school where we were lectured to for an hour. And then go off and read it and figure it out. So that’s not as effective, I think, as it could have been. Had there been more hands-on activities. But at the same time it’s really important to learn to be a self-starter and to learn to learn. And it’s not always going to be exciting and fun and technologically enhanced. Sometimes it’s just the boring work. And that’s what you learn in school – or you should learn in school – it’s not always about having fun or being entertained. But there’s some hard work that you’re going to have to do.

**Helping and Hindering**

Virtually all the design staff, as well as faculty member CL, finds the standards around course technology to be free of contradictions. They apply the design recommendations to their work.

GW does this, as well. But she is articulate about the contradiction she finds inherent in using technology to “entertain” students. She strives for a balance between use of technology and over-use in a Web-supported course.

**Learner Support: Standard VII**

The Learner Support standard has four sub-standards (MarylandOnline, 2006):

VII.1: The course instructions articulate or link to a clear description of the technical support offered;
VII.2: Course instructions articulate or link to an explanation of how the institution’s academic support system can assist the student in effectively using the resources provided;

VII.3: Course instructions articulate or link to an explanation of how the institution’s student support services can assist the student in effectively using the resources provided;

VII.4: Course instructions articulate or link to tutorials and resources that answer basic questions related to research, writing, technology, etc. (p. 1)

Of all the quality standards, this one is most directly met by use of Big Town’s course template. Because this section can be satisfied with links to university information on other Web sites, it is a good candidate for use of a pre-built template.

Since every faculty member developing a course at Big Town is required to use the course template, courses are more or less assured to meet the expectations of this standard. AE explained this was true because many parts of the template are pre-populated with College information, taking a burden off of the instructor to provide it.

**Helping and Hindering**

No staff or faculty saw contradictions in using this section of the standards to develop Web-supported courses. A possible explanation for this is that instructional designers take responsibility for seeing that course instructions are clear and complete. In my recorded work meetings, I recorded some instances of the instructional designer for Management 101 editing course instructions related to navigation through the course. In this design process, the instructional designer frequently anticipated when instructions might confuse a student, and edited the course text to correct this.
Some faculty and staff see contradictions in the use of Big Town’s template, which results, some say, in courses that all look alike. But in my interviews, no one objected to the use of a template pre-populated with essentially boilerplate information for students.

In my interviews with students, I coded for mentions of “student services” and “support.” While there were several instances of students using these services, such as open computer labs or tutoring, there was no description of the abundance or quality of these services.

**Accessibility: Standard VIII**

The Accessibility standard has four sub-standards (MarylandOnline, 2006):

VIII.1: Images meet at least Priority 1 guidelines (have ALT tags);
VIII.2: Other media (such as video) meet at least Priority 1 guidelines (are captioned and have ALT tags);
VIII.3: Web pages have links that are self-describing and meaningful;
VIII.4: Instructional information conveyed on Web pages in color is provided in neutral or contrasting colors. (p. 1)

In my interview with faculty and staff, the Accessibility standard received more complements for its usefulness than any other part of the rubric. Part of the reason for this widespread acceptance may be the legal part of accessibility standards: It is a requirement for universities to meet them in their online courses.

In her course review, AE deducted a point (the only deduction in her entire review of the course) for an accessibility requirement that was unmet: transcripts or captions for
the Paul Rogers video interviews. She explains the feeling of the department about meeting the accessibility standards:

…I think it’s something that has always been a real focus of the department and we have an accessibility manager. And, you know, from a legal standpoint we have to make these courses accessible. You know, that's the law. And so you know, we try to be very, very diligent in trying to address those issues and the more that we have faculty… what becomes difficult is when all of that material used to flow through us we can check those things very carefully but if faculty are putting their own material in Angel and they’re putting their own images in then they have to be really aware that there needs to be things like Alt tags or that tables are accessible and we have to then teach them and make them aware of that.

AE’s comment above points out differences in the views of accessibility issues by staff and by faculty. Generally, staff viewed accessibility with a sense of agency and responsibility for building it into their course designs. The fact that the department has an assigned accessibility manager points to their sense of responsibility for this quality standard. Both AE and course coordinator CS pointed out that accessibility requirements were a driver for the original design of the Big Town course template, another sign of the commitment of the department to the issue. Faculty, on the other hand, reported less agency and control over accessibility. They viewed it as highly technical, and some viewed it as the rightful province of the instructional designer.

**Helping and Hindering**

Faculty members working on Management 101 generally welcome the accessibility standards in the rubric, as they remind them to focus on their implementation in the design. But there was an interesting difference in the attitudes of
the two faculty members about being responsible for meeting the standards. CL, in an interview, seemed eager to learn how to implement as many of the accessibility standards herself as possible. By contrast, GW saw a contradiction in the requirement that she be responsible for meeting accessibility guidelines, which she felt were beyond her area of expertise.

**Contradictions as a Source of Change**

My analysis of contradictions and deviations that faculty and staff encountered in designing *Management 101: World Business* yielded five basic contradictions and deviations during the course of the development work. They emerged in discussions of all but one of the eight quality standards used as the basis for the design work. I’ve summarized the five contradictions in Table 5.3 below. The name of the quality standard appears first, followed by an interview quote that is suggestive of the nature of the contradiction or deviation. The last column in the table is my restatement of the contradiction.
Table 5.3  Central contradictions and deviations at Big Town

If we view the list of contradictions above in the light of activity theory and its division of an activity into components, the contradictions fall into two categories. One category holds contradictions between the subject (everyone developing the course) and the mediating tool or instruments (the quality standards design rubric). This description would cover the contradictions around Course Introduction & Overview, Learning Objectives/Assessment & Measurement, and Course Technology.

A second category consists of contradictions that appear between the subject and the division of labor. This would include contradictions and deviations around Learner Engagement and Accessibility. These two categories of contradictions and deviations are
mapped onto an activity triangle diagram of course development in the distance learning department in Figure 5.7 below.

Figure 5.7  Two kinds of contradictions and deviations in course development activity system

In the remaining part of this section, I’ll describe the first category of contradictions more specifically in terms of how they emerge as issues while using the design rubric, as well as anything they point to that is not being addressed by the Quality
Matters rubric. I’ll explore the second category of contradictions, which relate to the division of labor at Big Town, in Chapter Six.

**Contradiction #1: Course templates are useful but limit options and make courses all look the same**

As I pointed out earlier in this chapter, the use of a course template to format parts of the course – such as the syllabus – is not a requirement of the design standards. It is a strategy the distance learning department at Big Town uses to help faculty comply with the standards. Much of this compliance is enforced by the course technology itself, as the software presents faculty with a form to fill out to create their syllabus, as shown earlier in Figure 5.2.

This contradiction illustrates the difference between treating the standards as *guidelines* versus treating them as *rules*, and how this interpretation is up to the institution. Kay Shattuck from Quality Matters highlights this distinction in another way in this interview excerpt, describing whether a course design begins with a “Start Here” button for students to click:

> Standard One which is about overview and introduction… nowhere in there does it say everybody has to have a “start here.”…If you read a standard you can read it as a rule and you can say everybody at this college has to have a “start here” button…The standard doesn’t say that. It just says somehow you have to make students familiar with how to begin the course. You have to give them some instruction. The process that you’re talking about is… is internally how they’re making that come alive as opposed to another institution that might… just say, Ok, this is what the Quality Matters standard says so therefore, everybody has to have a “start here” button.
Shattuck makes the point above that the rubric can be implemented in different ways by institutions. Because Big Town’s distance learning department has formally adopted Quality Matters standards for course design as the standard, i.e., the expectation, for course design, it would appear to treat them much more as rules than as guidelines. By having faculty read the standards and sign a contract at the beginning of work to adhere to them, Big Town makes quite clear they are treating the standards as rules.

The distance learning department’s decision to have instructional designers do a written course review at the end of course development, rather than using the faculty peer review process suggested by Quality Matters, also shows the College taking a rules-based approach to use of the standards.

This contradiction points to an area of course design that the Quality Matters design project may fail to address. By making few recommendations to institutions about how to implement the standards – and whether to treat them as guidelines or rules – the project leaves this crucial decision up to each institution. This leads to a wide variety of implementations of the design standards across the country. More importantly, it leads to ways of using the standards that may actually work against the original intention of the Quality Matters effort: To be a faculty-centered, peer review process of quality improvement.

The use of a template at Big Town also highlights the design staff’s belief that the “look and feel” of each course at Big Town should be more or less the same for students. I encountered this view of course design quite widely at Big Town. Some informants—such as the department manager—tied the view to research she had seen on the value of a uniform interface for students’ ability to navigate a course. Other informants—such as
the Associate Provost—mentioned uniformity of look and feel in the context of marketing and branding Big Town’s distance learning effort. Faculty members I interviewed were both positive and negative about “sameness” in course look and feel. While faculty in the Business Department, including the lead developer of Management 101, also felt that a uniform look and feel helped their students with navigation, they were also concerned about sameness. As Business faculty member CR put it, “And if you say, Well that’s probably not exactly GREAT for our subject matter at this point. They’ll say, Yeah, but our students really like all our courses to be THE SAME.” He saw the issue as one of faculty losing control over their ability to design and improve a course.

In summary, while individuals were often of two minds on the topic, the use of templates was generally viewed by faculty and staff as as necessary when producing Web-supported courses at Big Town.

**Contradiction #2: Some learning objectives defy assessment and measurement.**

This contradiction was summed up by RL, manager of the distance learning department. It came up as a response to a question about whether there were any downsides to the use of the Quality Matters rubric in the course of developing Web-supported courses.

According to Quality Matters advisory board member John Sener, the Quality Matters rubric was designed to be pedagogically neutral, so that instructors with different philosophies of teaching and learning could adapt it to their own approaches – to assessment, for example. Yet, a review of the literature sources for the Learning
Objectives standard shows that it is rooted, to some extent, in behaviorist learning theory, with sources such as Benjamin Bloom (1956) and Robert Mager (1962) cited. Research director Shattuck acknowledges the behavioral underpinnings of instructional design theories based on learning objectives in a Quality Matters publication describing the research base for the standards (MarylandOnline, 2006). The standards also incorporate learning theories that are cognitivist and constructivist in origin. Its standards for learner engagement, for example, are clearly influenced by the Community of Inquiry theory, with its constructivist approach to distance learning (Garrison & Archer, 2007). For institutions that wish to have the rubric reflect a particular pedagogy, board member Sener, in an interview, recommends that users “tweak” the rubric to accommodate the pedagogical viewpoint. The official Quality Matters rubric is also supplied with a set of updated annotations to each standard, which allow for accommodating other learning theories and new research.

Faculty and staff and Big Town are aware that the use of the standards sets a de facto minimum standard for Web-supported courses at the College. Both manager RL and faculty member CR mentioned the inhibiting quality of a minimum standard for faculty who wish to do course designs that are exceptional or ambitious. Sener, a Quality Matters expert, also acknowledged the possible inhibiting effect of a minimum standard, which he called a “ceiling effect.” His comment, echoed in Quality Matters publications, suggests the project is sensitive and responsive to the criticism that a single, written set of standards can be a limiting factor for course designers and faculty. They counter the criticism by pointing out the value of the faculty peer review process, for which standards are but a starting point for discussion. Sener make this viewpoint particularly clear in this
statement contained in the Quality Matters research review from the 2005-2006 version of the rubric (MarylandOnline, 2006):

It is our sincere hope that those using the Quality Matters rubric will resist the temptation to use it as a simple behavioral checklist and instead use it as a launching pad to constructivist peer discussion leading to course improvement for the specific course under review.

Sener summarized the belief by the authors of the rubric that the standards should not be taken too literally by faculty and staff at institutions. But in summary, faculty and staff at Big Town working on the Management 101 course project are quite aware that the way they are using the standards presently lends itself to treating them as a behavioral checklists, and a minimum bar they must clear to meet the expectations of the College. In doing this, they must subscribe to the standards’ commitment to instructional design using learning objectives – a theory of learning with inherent limitations.

Contradiction #3: Academic content sometimes takes a back seat to using technology to entertain.

Sub-standard VI.6 of the rubric suggests, “The course design takes full advantage of available tools and media” (MarylandOnline, 2006, p. 1). In all the course development I observed at Big Town, instructional designers clearly took this recommendation to heart, and worked to find opportunities to use technology in engaging ways with the courses. Usually, they justified this effort by referring to the need to provide interactivity with the student in order to promote active learning. This design recommendation is reflected in sub-standard VI.2: “The tools and media enhance student
interactivity and guide the student to become a more active learner” (MarylandOnline, 2006, p. 1)

In the case of Management 101, the instructional designer began this effort at the first meeting with course faculty. She continued to emphasize creative use of technology in subsequent meetings, including one with her new faculty member, which she used to demonstrated technology tools such as “Flip Books,” a technique for displaying images, and “Study Mate,” a tool for creating flash cards and word puzzles from course content.

By and large, the faculty members I interviewed were appreciative of the need to use technology to make content more appealing for students. I pointed out in the discussion of the Course Technology standard, faculty member and department chair GW felt the use of technology should be balanced with, and not overwhelm, the requirements of the course content. The department’s priority for creative use of technology comes directly from the quality standards. Two of the eight standards areas—Learning Engagement and Technology—make specific recommendations to use technology to foster student communication—with other students and with the instructors—as well as to enhance interactivity with the course content.

Although the standards themselves promote technology use, they make no effort to answer the question posed by GW: When is enough technology being used? The standards appear to leave this discussion for instructional designers and faculty. Perhaps it is asking too much to expect a set of design standards to answer questions about the balance of technology tools and course content for a given course. Many of the issues involved—the kind of course content and available content resources, budgets available for media creation, faculty experience with technology-enhanced courses—are
completely context dependent. Big Town’s distance learning department, and its instructional designers, do a superb job of answering the questions about how, and in what measure, technology should be used. In the course development I observed, they do this through careful and thorough negotiation with faculty of the pedagogical and practical issues involved.

But it is hard for me to see how faculty might successfully meet the quality standards if they are facing the technology challenges alone, without the relationship with an instructional designer. This appears to be an issue that is overlooked by the Quality Matters design process, which presents itself as a faculty-centered, peer review process. Because it does not address the role of instructional designers in this process, the design standards and the process appear to ignore an essential activity of Web-supported design—the interaction between faculty member and instructional designer.

In the next chapter, I will address the close connection between course quality and the production model for course development. This chapter will also address the category of contradictions I’ve identified that have to do with the division of labor at Big Town.
Chapter 6
QUALITY AND ITS MANAGEMENT

Questions of quality cannot be separated off from the other organisational issues. For open and distance learning to be effective, and to meet the purposes for which it is being designed, it needs an organisational structure that fits the realities of students' lives while respecting the interests and integrity of academic staff. Structures of collaboration need to work effectively and sensitively. Funding arrangements and the choice of technology need to be designed so that they fit both student and purpose.

Perraton, 2004, p. 34

Overview of the Chapter

In the previous chapter, I analyzed the use of course design standards at Big Town, and the ways in which faculty and staff were helped or hindered by their use. I concluded that, in activity theory’s terminology, the Quality Matters course design rubric functions as an instrument – or mediating tool – helping course developers control and coordinate their behavior. I found contradictions around issues such as the use of course templates, the balancing of technology use with course content, and the implementation of the rubric itself. The Quality Matters process does not appear to address these issues, particularly the last two.
This chapter moves from the top of the activity triangle, with its focus on instruments, to the bottom of the triangle and to the division of labor in use at Big Town for Web-supported course development, as shown in Figure 6.1. I will take up my second research question: How does the project management model used at Big Town support and hinder the implementation of the Quality Matters rubric? As I explore this question, I will at the same time address my third research question: How do the perspectives of faculty, course designers, and administrators differ about the management model in relation to the implementation of the Quality Matters rubric?

Figure 6.1 An activity triangle model of quality management in a Web-supported course design process with research questions related to Rules, Community, and Division of Labor

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First, I will describe the management model currently in use and locate it within activity theory’s historical context of ways of organizing work. Following that, I will describe the context within which the course development work takes place in the department, and identify the driving issues for managers. Then I will trace one cycle of organizational learning at Big Town regarding improvements in its management processes. Finally, I will discuss contradictions in the management model at Big Town. In activity theory’s terms, “Contradictions can be seen as the “places” in an activity system from which innovations emerge” (Foot, 2001).

Finally, I will take up my fourth research question, which asks how the Quality Matters rubric leads to the development of a quality product, as defined by faculty, course designers, administrators, and students. I will examine how course improvement takes place at Big Town, and how this compares with Quality Matters continuous improvement model.

**Locating Big Town’s Management Model for Web-supported Course Development: Collaborative Teams**

Early theorists of distance learning in the 1960s created a model of the enterprise that captured the spirit of industrializing societies at the time. The model, which eventually became known as a systems view of distance education (Moore and Kearsley, 2005) had several sources. Charles Wedemeyer of the University of Wisconsin developed the Articulated Instructional Media (AIM) project in 1969. Its goal was to combine a variety of communications technologies to provided high quality instruction to students at
a distance. A working assumption of the project was that the duties of a teacher could be divided among a team of media specialists, who would then work together to design instruction that could be delivered via media and could meet or surpass the quality of classroom instruction. (Moore & Kearsley, 2005). During the same time period, Otto Peters in Germany developed his industrial theory of distance education, which analyzed distance education along seven dimensions of historical development: organizational, economic, cultural, sociological, anthropological, and pedagogical. His main thesis was that distance education is the most industrialized of all forms of education, and is structurally different from face-to-face education (Peters, 2007). His analysis of the organizational dimension of distance education, for example, reveals his systems theory approach, analyzing inputs, processes, and outputs:

An in-depth analysis and interpretation of the process of distance education reveals structural elements that are practically and theoretically the same as their equivalents in the industrial production process – for example, professional planning and preparation, formalization, standardization, mechanization, automation, digitalization, rationalization, division of work, mass production, repeatability, and centralization. (p. 58)

This theory describes essentially the same model of distance education as Wedemeyer’s. (Moore et al., 2009).

The early focus of distance education using media, described by Wedemeyer and Peters, shared a need for a management method to coordinate course production. The model that was adapted from industry is called “course design teams” by Moore and Kearsley, and is referred to as the “project management model” by many other practitioners (Bates, 2000). Tony Bates defines project management as an approach that
involves “…a team of individuals each contributing different skills, and the process is managed by a team leader or project manager” (Bates, 2000, p. 67). Today, project management models are still in widespread use in high technology fields such as software design. Along with a second model – known as the author-editor model – course design teams or the project management model are the most widely used management production model for distance education in North American institutions (Moore and Kearsley, 2005).

Big Town’s distance education activity – with its early roots in broadcast telecourses in the 1980’s, and its use of video – fits the description of a mass production activity, as described by theorists Wedemeyer and Peters. The distance learning department’s management model, presented to me by RL, the department manager, in a document, clearly resembled a project management model for distance education, as described by Bates. (Bates, 2000). But when I shared with RL some of my theoretical memos describing her model – in member checks – she reacted strongly to my characterization of her management approach as project management. She described it, instead, as a collaborative team approach. Engeström also recognizes the phenomenon of collaboration in his studies of work organizations. He identifies a type of community formation in knowledge-intensive organizations, which he calls “collaborative community.” Organization studies researchers Hecksher and Adler define collaborative community this way (Hecksher & Adler, 2006):

Collaborative community forms when people work together to create shared value. This increasingly characterizes societies in which the generation of knowledge, often involving many specialists, has become central to economic production. (p. 20)
A hallmark of a work organization that manages itself as a collaborative community is a reliance on *process management* to coordinate its activities (Hecksher & Adler, 2006). Engeström defines process management as having two purposes: “…developing a shared purpose across organizational units and divisions, and coordinating work among various skills and competencies along the value chain” (Engeström, 2008, p. 18-19).

Throughout my observations of Big Town’s distance learning department, and particularly in my interviews with its manager, I noted references to processes—both as a kind of script by which staff got work done, and also as tools needing frequent updating and improvement. The distance learning department’s development of these processes, and the team structure to go with them, is the focus of the next section of this chapter.

**The Management Model at Big Town: How it Supports and Hinders the Implementation of the Quality Matters Rubric**

My second research question asks, “How does the project management model used at Big Town support and hinder the implementation of the Quality Matters rubric?” This study found many examples of the management model at Big Town being very supportive of the implementation of the rubric. But it also identified three contradictions the model creates for faculty and staff.

The way in which the Quality Matters rubric is implemented at Big Town—as the official standard for quality in Web-supported course design—turned out to be both a management success and a barrier to success for course developers.
The use of collaboration and teams at Big Town dates back to its early use of instructional television. According to a history of distance learning at Big Town, published in 2004, the College began using pre-produced instructional television – or telecourses – in 1979, under the name *TV Big Town* (Big Town Community College, 2004). LH, a past dean of distance learning, claims the College began producing its own telecourses by 1980 (H.L., 2004). An overview of the College’s distance learning program, also written by LH, highlighted Big Town’s program as unique because of its self-produced television content (H.L., n.d.):

> In most colleges distance learning telecourses are licensed from external vendors and adapted to fit a particular curriculum offering…The Big Town Community College Distance Learning Program is unique in that most of the telecourses in our offering have been internally produced. They are scripted and recorded by Big Town full-and-part-time faculty. These programs are primarily lecture-based, and while they are not elaborate productions, they have served the college well. (p. 9)

Researchers of television production have recognized it as an inherently collaborative and cooperative activity (Metallinos, 1996; Cantor, 2007).

**Collaborative Teams and Quality**

LH, former distance learning dean, also recognized early on the connection between developing a staff of experts and fostering quality in distance education efforts (H.L., 2004):

> I mean to bring in the people who had the skills, who had the talents, who had the creativity and could do the things that needed to be done to really make these courses quality courses, that was probably the biggest change that took
place and probably one of the most important things, in my opinion. (p. 9)

Big Town’s first large expansion of its team-based approach to Web-supported education occurred in 1997 when one of its staff members, SQ, and a dean, BJ, wrote a successful grant proposal for three million dollars to the Ohio Learning Network. The goal of the project was to develop three online degree programs. The grant gave department manager RL the opportunity to build a design team. She hired five full-time instructional designers. It was at this point in the department’s history, in an interview, that RL emphasized her personal commitment to teams and to using processes, i.e., a systems approach, to course design:

RL’s commitment to the use of interdisciplinary teams to design Web-supported courses came up repeatedly in my interviews with her and in my recordings and observations of staff meetings. She ties her view of the value of a team-based, interdisciplinary approach directly to course quality. She does this by invoking a systems approach to view the distance learning enterprises as a series of inputs, processes, and outputs. This view is identical to the view taken by distance learning theorists Wedemeyer, Peters, and Moore.

RL justifies her views on the value of using collaborative teams at both the philosophical level – by aligning herself with theorists such as Moore – and at a deeply emotional level, in her commitment to maintaining a close-knit, multidisciplinary department. Her, she shows how she values her employees:

…Each person on my team is like a precious gem. They’re so unique, and they have such unique skills, and I think highly of every single one of them. And I do think, Oh, I
can’t imagine a team without this one person, you know, any of them.

Department staff and creative team members I spoke with echoed RL’s commitment to a collaborative team approach to course creation. In the meetings between instructional designers and faculty I attended, the team approach was always explained and emphasized as the culture of the distance learning department. All instructional designers indicated they make an effort to help faculty understand how to work effectively with their team.

The department’s emphasis on collaboration is not lost on faculty. All faculty members I spoke with acknowledged the value of interacting with the staff in the course of developing their projects. Typical of faculty reactions was this comment by JA, chair of the Health Information Management department, who talked about being embraced by the distance learning staff, “as part of that process, and they help you determine how best to address the needs of the student.” Another Health Information Management faculty member singled out the expertise of the video production staff. “…it was just an exciting thing to watch that they needed very little direction, ’cause they understood what we were looking for.”

Faculty had particular praise for the depth of their relationships with instructional designers. Faculty valued instructional designers’ role as guides and coaches: “V. keeps us on track because there’s things that we’re not paying attention to that she knows.”; as technologists: “The hard lifting – the heavy lifting is really being done by T. and her people”; and as experts at using multimedia to engage students: “I really rely on T. to do all the “pop.””
The depth of the collaborative relationship between the instructional designer and the faculty member may, in fact, be linked to the quality of the final course. One instructional designer, EG, described how she thinks about that relationship and quality:

GREENBERG: So you knew sort of at the start of this course, even when you were just getting started, that it would be good?

EG: No. It’s after I started meeting with them. When we sent this template. Because of the faculty. They were like really open minded. Really collaborative. (smiles) SO that’s when I knew this was going to be a good quality course. They were meeting the deadlines. They were open to suggestions. We were talking, discussing things. That’s when I knew this was going to be a quality course.

RL’s collaborative philosophy for the distance learning department also extends to its use of the Quality Matters rubric for course reviews. Although her staff had just begun using the standards to do reviews of completed courses, RL explained that her intention was for instructional designers to gather input from other team members for the reviews. RL mentioned both accessibility – which would have input from the accessibility manager CS – and graphic design as two specific areas of the review where instructional designers would get input from other team members. In practice, this approach to reviewing was less apparent. I talked with instructional designers about three course reviews they completed. In each case, the instructional designer completed their review more or less independently, going to their colleagues only if they had specific questions.

In summary, it was apparent in my interviews and observations that RL’s description of her management approach as team-based collaboration matched the
practices of her staff, in both their interactions with faculty and in their work with each other. In the next section, I will analyze the context around course development at Big Town during the period of my research. This context shaped the issues of my case, and focused my research around management models and their influence on quality.

**Context and Issues of the Case for Management at Big Town**

In an instrumental case study, a researcher must study the issues of the case in order to properly address research questions (Stake, 2003). Similar to themes that emerge from interpretive research, issues are highlighted and clarified by the researcher’s observations during the course of the fieldwork. In case study work, issues and research questions are closely related. Researcher Robert Stake recommends that case study researchers work with a flexible list of issues-related questions, which they revise and redefine as the research progresses (Stake, 1995). In light of Stake’s recommendation, I made frequent lists of the issues in my case study, and updated them as the fieldwork progressed.

CHAT researchers search for issues in cases by identifying contradictions and deviations in the activities they study. After the first three months of my research, I identified contradictions, coding for them in interviews, meeting transcripts, and email traffic between the course developers. I developed the following list of contradictions as case issues for the staff of the distance learning department:

- Pressure to promote quality while producing more courses;
- Pressure to measure quality when not all quality is measurable or observable;
• Need to promote quality and increase production of courses without sacrificing the well-being of the course development team

Of these issues for staff, the last one would become the driving issue of the case for staff and administrators as my research progressed.

Using the same approach, I developed a second list of case issues for faculty:

• Putting courses online quickly with faculty who do not want to teach online;
• Faculty who were hired years ago as “cowboys,” i.e., independent professionals – are now held responsible for outcomes assessment and proving students are learning;
• Faculty with a “solo pilot paradigm” are stepping into a collaborative course development process for Web-supported courses;
• Faculty workload increases due to Web-supported education;
• Faculty discomfort with peer review of Web-supported courses;
• Faculty expected to be experts in Web-supported education when they weren’t hired for that;
• Faculty unhappiness stemming from a loss of autonomy over the last decade.

Of these faculty issues, the issue of workload also related to expectations by the College to produce more Web-supported courses each year. Because this expectation was an issue for both staff and faculty, I chose to focus more attention on it for the rest of my study at Big Town. The issue, which I came to label and code as production pressure, also grew in importance during my six months of fieldwork.
Production Pressure at Big Town: How it Affected the Interactions of Faculty and Staff

The 2008-2009 academic year at Big Town marked a significant uptick in Web-supported course production. This year would be the distance learning department’s first year to develop or re-design seventy-two courses. This represented a doubling of the department’s output from the previous year, with no additions to staffing.

For RL, this expectation created a basic contradiction: How could she meet the demand for more courses without running her staff into the ground with the increased workload? She described the contradiction this way:

Because I have, I think, this high energy, hard working, dedicated team, and we kind of knock ourselves out, and love the work we do, and are excited to be doing new things. And kind of moving the college forward, and breaking new ground …And so I have wonderful people, and I don’t want them burnt to a crisp. And N. is sympathetic; she knows. I could tell them, we have to do one hundred courses a year. But I think that would ruin the spirit; that would turn us into a widget factory.

The increased demand for Web-supported courses is rooted in the history of Big Town’s distance education effort. In the past five years, online course enrollment has grown between twenty and thirty percent per year. Significantly, in the last two years, this represented the only enrollment growth at the College relative to the previous year. The result of these enrollment trends, as told to me by RL, was a rapid increase in faculty and departmental demand to develop Web-supported courses and programs. The demand quickly outpaced the distance learning department’s ability to develop courses, even with
a doubling of RL’s staff over the past several years. That demand for the department’s services continued to increase during the six months of my fieldwork.

**Production Pressure and Issues for Faculty**

The move toward more Web-supported course development in the past two years was driven by College administrators as well as by faculty. A new Vice President of Instruction, HG, came to Big Town and was supportive of rapid growth in distance learning. She brought pressure on faculty and chairs to develop online courses and programs within specific timeframes.

The result for faculty was more pressure to develop and teach Web-supported courses, and increasingly demanding timelines for completing the development work. The instructional designers I interviewed frequently mentioned course development schedules as a point of friction with faculty. Tight schedules also required department chairs to assign more faculty members to work on development of these courses, sometime exceeding the number of full-time faculty available to do the work. This has required some departments to look outside the College for adjunct faculty to help develop courses.

I observed such a pairing of full-time and adjunct faculty course developers in Management 101. Although the full-time faculty chair and the adjunct instructor enjoyed working together, the chair admitted to some reservations about the arrangement:

> But when it comes to developing a course, I’d rather just do it myself with the instructional designer but since they force us to have somebody come along...it’s not an uncomfortable relationship, it’s just a little bit hard to, to match up the times when you can get together, especially
with a part-time person because they’re not down here at Big Town.

GW, quoted above, has developed Web-supported courses before, and is considered a veteran by the distance learning department. Faculty who are having their first experience with online course development can feel much more acute pressures. Added to the pressures to develop the course are the pressures to teach it online. GW, the primary faculty developer of Management 101, also taught the course online and face-to-face in subsequent quarters. The combination of developing a course while teaching others online brings even more time pressures, which GW admitted had prevented her from taking a vacation without bringing the online work along for eight years.

In response to production pressures on both faculty and staff, RL asked her instructional designers to re-think departmental workflow in order to accommodate the new demands. This collective effort to create a solution to the problems of production pressures is the topic of the next section of this chapter.

**Challenges and Contradictions: Cycles of Learning in the Distance Learning Department at Big Town**

Activity theory, as developed by Engeström, seeks to understand how groups at work learn collectively to innovate and overcome contradictions (Engeström, 2005). Researchers using activity theory in the workplace seek out examples of this collective learning, which they call innovative organizational learning. Such learning can be defined as, “…collaborative learning in work organizations that produces new solutions, procedures, or systematic transformations in organizational priorities” (Engeström, 1995).
p. 118). When such innovation is sustained by an organization over a long period of time, it can rise to the level of expansive learning. Engeström defines this kind of learning as, “…the phenomenon of going beyond the initially given context of specific problems and refocusing on the wider context that generates those specific problems” (Engeström, 1995 p. 331).

In its ideal state, an expansive cycle of learning has five phases. They are a need phase, and analysis phase, a modeling phase, a testing the model phase, and an implementing the model phase (Igira & Aanestad, 2009, p. 212).

All of these phases were present in RL’s departmental effort in 2008-2009 to adapt to developing Web-supported courses more rapidly than before. I will attempt to analyze the effort by phases. Then I will discuss the relative successes and failures of the reform effort, as reported by RL at the end of my fieldwork. Finally, I will take up the implications of this organizational learning for quality improvement efforts at Big Town.

When I began my research in January 2009, the distance learning department had already moved through several of the phases of the learning cycle, and was working on the last two: testing and implementing the model. The testing had begun the previous fall, and continued during my fieldwork. What follows are five sections tracing the development work that took place before my research began, and continuing with its testing of a new model in winter and spring of 2009.

**Need Phase**

RL began exploring the need for a new way of dealing with production pressure in the summer of 2008. A crucial experiment in the effort was a project to create new
efficiencies in working with faculty. Led by instructional designer AE, the project was called “e-REdesign.” It featured a workshop environment in which ten faculty members worked with AE and CS to, among other things, transfer more knowledge about the use of Angel, the college’s learning management system, to faculty.

Another facet of the summer experience was to acquaint faculty with the Quality Matters standards and allow them to review another faculty member’s course – an “informal review,” in the language of the Quality Matters organization because it is carried out by people who are not certified as formal reviewers. This experience was not popular with one faculty member, GW:

> I had a course that I didn’t know anything about and the person who was writing the course was never done on time. And so I have to get in two and three times to see if they would have been interested. Then they weren’t, so I’d have to go back in and they were asking about content of the course. I didn’t know anything about the content of the course. So, I did not like that process at all and would prefer not to do it again ever.

Although disappointed with the Quality Matters peer review process, this same faculty member was excited about learning more about ANGEL, the College’s learning management system. She told me she felt empowered by this knowledge.

**Analysis Phase**

In fall 2008, RL and her three instructional designers met to discuss the results of the e-REdesign workshop and how to structure the course development process. The instructional designers decided they would try and develop a single process that would combine aspects of one-on-one development with an instructional designer, which they called “Full Development,” with aspects of group instruction such as the summer
experiment, which they called the “e-REdesign process,” to develop a process on paper. With RL’s help, they drafted their plan.

**Modeling the New Solution Phase**

A major feature of the new process was the creation of a new job description for three staff in the department. The new role, now as a “course coordinator,” would combine aspects of a project manager’s job with aspects of a Web technician’s job. The goal would be to reduce demands on the time of the three instructional designers in the department.

AE, the instructional designer who led the e-Redesign experiment, described the time demands of her current job in a staff meeting:

> I don’t know how you feel? I feel like I’m a funnel for everything. And it’s all flooding through there. And my hole (laughs) is only SO large!

RL embraced the instructional designers’ plan to split off some of their project management duties to a second person. She describes the course coordinator’s job this way:

> But it is a project management role in that I’m asking these course coordinators to develop the schedule – work with the instructional designer – but develop the schedule with the faculty member, and the deadlines, the milestones, follow up on it, let me know if it falls behind, get the media requests, enter them on time, those that are approved – work with these guys to get it done. So it’s really a project management function.
Testing the New Model Phase/Implementing the New Model Phase

In January 2009, as I began my fieldwork, the department began testing and implementing their new course development process. The department combined these two phases out of necessity: The production demands dictated that the new model be pressed into practice immediately. Management 101 was one of the first courses to benefit from the new structure, with a course coordinator – CS – assigned to work with the instructional designer, AE.

In many ways, Management 101 appears to be a success story for the department’s new innovations. The course was completed on time, in the face of some extraordinary pressures (such as the imminent birth of the adjunct instructor’s baby as the development process was gearing up in January). The course meets the Quality Matters review standards with room to spare. All the staff and faculty I interviewed reported being pleased with the development process and with the quality of the final product.

In my interview with course coordinator CS, it was clear that she was feeling her way into a new job responsibility. In the new process plan, the course coordinator has the following responsibilities, taken from a departmental planning document (L.R., 2008):

- Develop a project schedule at the onset of each new project;
- Report progress of the project against the schedule on a biweekly basis;
- Submit timely and complete Media Requests;
- Coordinate the timely development of Media Requests;
- Provide all appropriate media to Digistore Coordinator before course goes live;
- When a CD is produced, coordinate processing of Master CD with BR;
Ensure course is completed on schedule (or notify S. at earliest delay);

Ensure written quality review of course is conducted by Instructional Designer within two week of course being offered. Store in Documentation folder for course.

Coordinate with manage of the SOLCC the addition of exemplary work to the SOLCC Inspiration Gallery (These recommendations come from the Instructional Designer on the Quality Review.)

Make final list of media and its location in the course and store this list in the Documentation folder for course (This is what the approach the team chose when we discussed whether to archive media in the Digistore.) (p. 1)

In addition, on a document titled, “WCDT Course Coordinator Checklist,” the course coordinator is tasked with the following technical responsibility: “Request and prepare the ANGEL shells and repositories needed for the course and the course folder on the shared drive.”

In our interview, I asked CS about a course meeting AE had scheduled to discuss media requests, which are an area of responsibility on her list. But CS was not scheduled to attend. CS credited the confusion to their early stage in identifying the role of the course coordinator. CS’s experience highlights the exploratory nature of the new course development process. It also points out the complex coordination required of staff by the new process, and places where it can break down.

**Consolidating and Reflecting Phase**

This phase began soon after the implementation phase. In a remarkable staff meeting I attended on April 13th, 2009, RL invited instructional designers and course coordinators to review the role of the course coordinator in their new plan, and how it was faring.
The staff rapidly took up the issue of communications problems between instructional designers and course coordinators. JA, a course coordinator, and EG, an instructional designer, described the problem:

JA: It’s like playing telephone.

EG: We might miss some information. They might need some more information. They can directly contact faculty.

Picking up on this theme, CS dramatically summarized the communication problem, and its impact on the department:

CS: I think I understand what J. is saying. It’s like there’s, here, here, let me be wonkish about it. (laughter)

AE: Thanks for the help, M.!

CS: It’s like there’s three categories. Either we’re both doing the same thing at the same time. Which is probably not a good idea. Or one of us is doing it and the other’s not. Or one of us is doing it; it’s like, the ID is doing it and the coordinator’s not. Or the coordinator is doing it and the ID is not. Well those two are ideal; but this is not good. Where we’re both doing it at the same time. Or NOBODY’s doing it! Because we both think we’re doing it. So it’s like

RL: And I think what I hear – and tell me if I’m hearing it right –

CS: I can’t say that again, so don’t ask me. (much laughter)

AE: Yeah, could you repeat that, M.!

SQ: We’ve got it on tape. You don’t have to.
The meeting sharpened its focus on the time-consuming process of planning and requesting multimedia support, and tracking the progress of media support for courses. Staff discussed how course coordinators could help instructional designers with this burden. RL also brought the meeting back to the topic of a reconsideration of their two-track model of courses development, in which one approach is used for novice faculty developers and another for experienced faculty developers:

> And so the process is defined separately for experienced faculty developers. That you are having a course coordinator do more. And I think your guide is what you guys wrote. But what we want to keep thinking about it, does that make sense? Is it helpful?

**Challenges and Contradictions: The Limits of Collaborative Teams?**

In the six months I collected data, the use of collaborative teams to manage projects was tested at Big Town under great pressure. The doubling of the department’s workload had implications for both the well being of team members, and for the quality of the courses produced. RL was well aware of both these risks as she began testing and implementing a new development process. But there was a significant change in her view of the process between our first interview in January and a second interview six months later in June. In January, she was optimistic about the reformed process and its chance for success. But by June, her outlook was less rosy:

> We went live with the new process in winter. And pretty early on, feedback from my team members made it pretty clear that...they made some incremental changes, but probably not the deep change that we needed to meet...
pressure to develop more courses. Even though that was the
requirement of the project, I think we fell short. So there
were early indications – we really didn’t hit the mark… So
I stepped in and said, Thanks for the work. We are going to
have to change more quickly.

I asked RL if she felt the pressure to produce twice as many courses with the same
number of staff was a threat to the quality of the course development:

I think – increasing demands for online courses poses
multiple threats to quality. Not any one. And if faculty
don’t receive enough training, support, whatever, the
courses may simply be poor. Or ineffective, and lead to
lower success rates. If they are mediocre and cookie-cutter,
they may meet the minimum requirements of the students,
but may not be as stimulating and engaging as they should
or could be, which has sort of indirect consequences to
student engagement and that kind of thing. So increased
production is, by its nature, a threat to quality and the
threats could take different forms.

What emerges in RL’s comments about threats to quality is that if the
management model fails, within the context of the College and its expectations for course
output, then it will not support the implementation of design recommendations and
standards used by the department. The management model is, therefore, integral to the
success of the Quality Matters framework at Big Town.

My second research question asks, How does the project management model used
at Big Town support and hinder the implementation of the Quality Matters rubric?
Because Big Town chooses to use the Quality Matters standards as its own standards for
high quality Web-supported education, the management model in use is at all times
focused on supporting the implementation of the Quality Matters rubric. Hence, my
exploration of how the model supports and hinders the implementation of the rubric can
be reduced to a discussion of the success or failure of the management model to perform on a day-to-day basis.

There are numerous reasons for and barriers to the success of this particular management model – collaborative teams – at Big Town. Drawn from my discussions with managers and instructional designers, the following is a list of the reasons for the model’s success to date:

**Reasons for Collaborative Teams Model’s Success**

- It is successful with most faculty clients;
- It effectively tracks development activities;
- It tracks expenditures of departmental time and effort;
- It predicts expenditures of departmental time and effort for specific courses;
- It maximizes the creative contributions of the team members, and functions as “more than the sum of its parts;”
- It is compatible with the Quality Matters design standards and creates a working environment that supports them;
- It is familiar to everyone in the department;
- Its work processes are openly available, on paper, for department members to suggest improvements;
- It can be adjusted to compensate for changes in distance learning technology.

The reasons for the management model’s success at Big Town largely match those cited in best practices studies of project management in companies (Loo, 2002).
They fall into two general categories: “technical skills” and “people skills,” around these two poles (Loo, 2002, p. 97):

• Effective technical competencies centering on project planning, scope management, project control especially over costs/budgets, and having a project management system and documentation, and;

• Effective people competencies centering on communications and client/stakeholder participation

Interestingly, though, the project management literature around best practices says little about quality efforts or quality improvement. Hence, a central feature of Big Town’s management model – the support of the Quality Matters rubric and process – appears of lesser concern to project managers in companies.

Barriers to the management model’s success at Big Town, drawn from interviews and observations, look like this:

**Barriers to Collaborative Team Model’s Success**

• It can’t compensate for faculty member’s lack of skills in certain areas (such as writing or the use of computers);

• It is relatively expensive (according to my interview with Big Town’s Associate Provost);

• It may not feel empowering to faculty;

• It may not adjust to technological change that is very rapid;

• It is “foundationally a linear view of work and production” (Engeström, 2008 p. 19). “In its linearity, it follows, albeit in expanded and more sophisticated forms,
the same basic logic of standardized industrial mass production …But particularly in conditions of innovation – and knowledge – driven production that involves customers as co-producers and co-innovators, the linear logic of process management is simply not enough” (Engeström, 2008, p. 19).

The barriers to the management model’s success at Big Town also parallel themes in studies of barriers to improvement in project management in corporations. Those parallel themes about barriers include: “Time pressures and constraints”; Leadership and the organizational culture”; Inadequate investment in training”; The need to empower teams: and “Changing culture and managing change” (Loo, 2002, p. 95). In the next section of the chapter, I will map the barriers to the management model’s success as contradictions within an activity system. I will also explore the various perspectives of stakeholders in the development of courses relative to the management model in use.

**How the Perspectives of Faculty, Course Designers, and Administrators Differ on the Management Model**

My third research question asks, “How do the perspectives of faculty, course designers, and administrators differ about the project management model in relation to the implementation of the Quality Matters rubric?” These stakeholders’ differing views were represented in the lists of reasons for and barriers to the management model’s success I’ve just described. This study found many instances where stakeholders viewed the management model as very successful in implementing the Quality Matters rubric. However, it also identified three areas of contradictions about the model for faculty, course developers, and administrators.
Once again, these contradictions point out areas of rapid change in the Web-supported course development process at Big Town. They also point to areas of learning at work for faculty and staff, as well as areas ripe for innovations in the course design process itself.

Since Big Town has adopted the Quality Matters rubric as its official standard for quality, all of the distance learning department’s development activities with faculty and staff are focused on implementing the rubric. Therefore, I will not make an effort to relate stakeholders’ perspectives back to the rubric, and will focus once more on their perspectives on the management model itself.

I can group the reasons for success and barriers to success by stakeholder to reflect their differing perspectives on the management model of collaborative teams, as illustrated in Table 6.1:
### Table 6.1 Success of and barriers to success for the management model, by stakeholder

<table>
<thead>
<tr>
<th>Faculty Views</th>
<th>Course Designers’ Views</th>
<th>Administrators’ Views</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>S</strong></td>
<td>Maximizes the creative contributions of team members</td>
<td>Successful with most clients</td>
</tr>
<tr>
<td><strong>U</strong></td>
<td>Compatible with the Quality Matters design standards and supports them</td>
<td>Tracks development</td>
</tr>
<tr>
<td><strong>C</strong></td>
<td></td>
<td>Tracks expenditures</td>
</tr>
<tr>
<td><strong>E</strong></td>
<td></td>
<td>Predicts expenditures</td>
</tr>
<tr>
<td><strong>S</strong></td>
<td></td>
<td>Maximizes creative contributions</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Compatible with QM standards</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Familiar to everyone</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Processes openly available</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Can be adjusted for changes in technology</td>
</tr>
<tr>
<td><strong>B</strong></td>
<td>It doesn’t feel empowering.</td>
<td>It can’t compensate for faculty members’ lack of familiarity with quality in Web-supported courses.</td>
</tr>
<tr>
<td><strong>A</strong></td>
<td>Faculty members are asked to take responsibility for quality issues that are beyond their expertise to control.</td>
<td></td>
</tr>
<tr>
<td><strong>R</strong></td>
<td>Web-supported course development and instruction consumes endless hours of a faculty member’s time.</td>
<td></td>
</tr>
<tr>
<td><strong>R</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>I</strong></td>
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<td><strong>E</strong></td>
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<td><strong>R</strong></td>
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<td><strong>S</strong></td>
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</tr>
</tbody>
</table>

Although more infrequently mentioned than successes by informants, barriers to success are inherently interesting because they point to contradictions and tensions within the activity system. In the table above, I treated the barriers as contradictions and mapped them onto the activity triangle model of course development at Big Town. Since the collaborative team model is a type of division of labor, all the contradictions occur
between this part of the triangle and other parts: in this case, the subject and the instrument. The activity triangle model appears below as Figure 6.2:

Figure 6.2 Contradictions between the collaborative team management model as a division of labor and other parts of the course development activity system.

= “It can’t compensate for faculty members’ lack of familiarity with quality in Web-supported courses.”

= “It can’t compensate for faculty members’ lack of skills.

= “It may not feel empowering to faculty.”

= “It can’t compensate for faculty members’ lack of skill in certain areas.”
In the next section I will analyze the above contradictions as stakeholders voiced them. The first point I wish to make about the perspectives of faculty, course designers, and administrators on the management model in use at Big Town is that they see far more successes of the model than barriers to its success. This is borne out by looking at the table in Figure 6.1. This largely affirms the faith that department manager RL professes for the model. This is a faith reaffirmed by most of my faculty, instructional designer, and administrative informants.

Contradiction #1: It May Not Feel Empowering to Faculty.

The faculty chair and one faculty colleague in the Management Department at Big Town mentioned this contradiction. Both related the contradiction to a general loss of autonomy and control they felt over the Web-supported course development process at Big Town. I discussed their views in Chapter Five around the issue of the enforced use of course templates. The contradiction also emerged in Chapter Six around the conflict between RL’s use of collaborative teams and one faculty member’s preference for doing much of the development work herself – which RL called “the solo pilot paradigm.” RL views the contradiction of the solo pilot paradigm as inherent to faculty culture at Big Town.

Researchers of the use of project management approaches in higher education have attempted to explain the barriers that academic culture presents to working with teams. Bates (2000) writes generally that faculty perceive the project management approach as overly logical, and restrictive of individual faculty member’s sense of freedom and originality. But he offers no easy solutions to faculty members’ resistance to
being “managed” in distance learning departments. Indeed, RL also reports no easy way of bridging this cultural difference in her work with faculty at Big Town.

One way in which the empowerment contradiction emerges is in faculty complaints about being asked to take responsibility for quality issues they feel are beyond their expertise to control. GW raised this issue in regard to the need to meet Priority One accessibility guidelines in her Management 101 course. She felt this was beyond her expertise, and more properly the realm of an instructional designer. However, the distance learning department’s policy is to have faculty members sign a statement guaranteeing their course will comply with the quality standards. Because of this, the College ultimately holds faculty members responsible for meeting all of the Quality Matters guidelines.

One possible explanation for faculty complaints about taking responsibility for meeting quality standards could be that faculty members and instructional designers are still working out the boundaries of their responsibilities for quality.

A second way in which the empowerment contradiction for faculty emerges is in the complaint that Web-supported development and instruction consumes endless hours of a faculty member’s time. Instructional designers, managers, and the Associate Provost at the College acknowledged in interviews the problem of increasing faculty workloads.

Faculty workloads in developing Web-supported courses may be increasing as a result of new processes put in place by the distance learning department. Specifically, the department’s new emphasis on faculty development of skills with the Angel course management system may shift more technical work from the department onto individual
faculty members. According to instructional designer SQ, the distance learning department did most of this work for faculty members in the past.

Contradiction #2: “It can’t compensate for faculty members’ lack of familiarity with the meaning of quality in Web-supported courses.

Instructional designer AE raised the issue of a contradiction for faculty when they are expected by the College to be familiar with the meaning of quality in the context of a Web-supported course. As she points out below, her department might be wise to do more professional development with faculty about the quality issue:

I think in an ideal world everyone who commits to developing an online should first go through quality training FIRST…Then they’ll learn what it takes to develop a quality course, and I think that’s probably the better place to begin.

The distance learning department’s newest plans for course development—which put more emphasis on faculty workshops and professional development—appear to move in exactly the direction AE suggests above. As an innovation in response to a contradiction in the workplace, this is exactly the kind of response activity theory predicts. In Engeström’s terms, this shows how contradictions “…play a central role as sources of change and development” in activity systems (Engeström, 2008, p. 205).

Contradiction #3: “It can’t compensate for faculty members’ lack of skill in certain areas.”

This view was forcefully stated by both an instructional designer (AE) and an administrator (RL). Like the contradiction around faculty members feeling
disempowered, this contradiction is connected to characteristics of academic culture at Big Town. RL sees it as a structural problem – she has no direct power to make faculty improve their Web-supported course development skills. Additionally, skills at Web-supported instruction were never a part of the job description when many current faculty members were hired. Hence, they can have weaknesses in areas where Web-based instruction demands proficiency such as writing for the Web, or using Web-based multimedia technologies.

The distance learning department’s recent planning efforts – such as the e-REdesign project—sought to improve faculty skills by offering more professional development around the use of technologies such as Angel—the course management system. RL claims this has borne fruit, but still doesn’t keep up with the growing demand for course production in her department.

**Quality Matters and Course Improvement: How the Rubric Leads to the Development of a Quality Product**

My fourth research question asks, “How does the Quality Matters rubric lead to the development of a quality product, as defined by faculty, course designers, administrators, and students”? This study found faculty, course designers, administrators, and students in general agreement that the Quality Matters rubric *does* lead to the development of a quality Web-supported course. Some faculty, course designers, and administrators credited the quality improvement to the Quality Matters professional development experience. They also credit its success to faculty exposure to instructional design principles.
Students reported their own perspectives on what constitutes a high quality Web-supported course as agreeing with many of the quality standards called for in the Quality Matters rubric.

In some ways, the question of course quality improvement sounds like a rather limited investigation of the inner workings of forty quality sub-standards on paper: a design rubric. But Kay Shattuck, Director of Research for Quality Matter, made this point about the Quality Matters project:

The magic is in the process... If there’s one thing that makes the hairs stand up on the back of my head is if people think of Quality Matters as a rubric. The rubric is a guideline. I think it’s a good guideline. I can attest that...it’s grounded and... it has really solid grounding, but it’s a launching pad for discussion... And I always say this: Quality Matters is constructivism at its best.

The process of peer review of courses that Shattuck refers to is one that is just getting started at Big Town. In July 2009, toward the end of my fieldwork, Big Town became a formal, dues-paying member of the Quality Matters consortium in Ohio. Now a full member, Big Town’s distance learning staff could begin to attend local training to learn more about the latest version of the rubric. Some staff would become certified as Quality Matters reviewers – an expectation of membership in the consortium. Instructional designers had conducted these reviews only informally with faculty clients up until now.

At the same time, BW, the Dean of Distance Learning, would begin an effort to build further support for Quality Matters at the College. Part of this effort would be convincing some faculty to be trained as Quality Matters master reviewers. In this role,
they could perform formal course reviews of other faculty member’s Web-supported courses, both from Big Town and from other institutions in other states.

In this section, I will begin by arguing that the recent quality improvement efforts at Big Town that employ Quality Matters design standards are already showing evidence of improvement in the quality of Web-supported courses. This evidence comes from the analysis of success rates, mostly based on course grades, gathered by the Dean of Distance Learning. It also comes from a report on improvement efforts prepared in Fall 2008 by an instructional designer, AE, involved in a reform project called “e-REdesign”.

Then, I will address how quality improvement appears to happen at Big Town from the perspective of different stakeholders in course development: faculty, course designers, administrators, and students. I will analyze how both the Quality Matters standards and the process of peer review contribute- or may contribute in the future- to improving the quality of courses.

Finally, I’ll revisit the question of what mechanisms are responsible for the quality improvement being witnessed at Big Town. How do these mechanisms function now, and how will they function in the future as course development – following Engeström’s predictions about knowledge and innovation-intensive organizations – becomes more fluid and de-centralized (Engeström, 2008).

How does the Quality Matters experience lead to the development of high-quality online courses – and to their improvement? Kay Shattuck, Director of Research for Quality Matters, puts much of the credit on the formal course review process, and its effect on faculty who provide courses for review, rather than on a rubric. This was a theme I heard frequently from Quality Matters officials and trainers: that the process of
peer review it embraces—and the conversation it creates among course developers—is as important as course design standards for improving quality. When I began my fieldwork in January 2009, Big Town had not formally joined the Quality Matters consortium in Ohio. This meant that no faculty or staff had yet been certified as formal Quality Matters reviewers. All course reviews taking place on the campus were “informal” reviews, i.e., carried out by reviewers who had not yet been formally certified by Quality Matters, although they had received training. But the campus had already had a good deal of experience with the standards and the rubric. When I began my research, the distance learning department at Big Town was already using the rubric with faculty to design Web-supported courses. They were doing this under the direction of a talented manager, who was using a collaborative team management approach to do the course development. They were also working under tremendous pressure—developing courses and programs at an ever-quickening pace to meet the demand from the Provost’s office, and from faculty who wanted to develop courses and from students who wanted to take them.

**Quality for Administrators**

In interviews, the Dean of Distance Learning, BW, told me she was seeing improvement in Web-supported courses at Big Town. Ever since adopting the standards as Big Town’s formal course design standards, BW had been tracking student success rates in Web-supported courses and comparing them to their face-to-face versions.

As a specific example of the way she tracks course improvement, BW shared with me her 2008-2009 tracking of several courses in the Accounting/Economics department. Her graph of the data is shown below as Figure 6.3. In the document that summarized the
results (W.B., 2009), BW claimed that one quarter’s worth of data showed a significant improvement in the performance of Web-supported students. The success rate (pass rate) in two Accounting/Economics courses improved by ten percentage points, while two other courses showed an almost twenty percentage point improvement:

![Online and F2F Success Rates](image)

Figure 6.3 Online and face-to-face (F2F) success rates for Accounting/Economics courses (W.B., 2009)

I asked BW what she felt caused the improvement of Web-supported courses to take place. She credited faculty exposure to instructional design concepts, as embodied in the department’s design standards, as faculty worked with staff in her department:

Well it helps. I think it helps them in developing their course so they know what’s required in an online course if they’ve never taught online or developed an online course before. They know that common navigation is important, that student to student, faculty to student interaction is important, that the alignment of their content, their learning activities and their assessment is important.
Quality for Faculty

In my research, I found it more difficult to document quality improvement, as defined by faculty, and how they felt it took place. Unlike administrators, faculty I spoke to had no systematic approach to collecting data about the quality of Web-supported courses. They were generally aware of the trends BW reported: that Web-supported students success rates had been catching up to face-to-face student success rates over the last two years.

When I asked them about course quality, and how they defined a quality course, faculty brought up a wealth of issues equal to the complexity of their job as educators. Among them were:

- Importance of relying on class feedback for Web-supported course corrections (GW);
- Importance of allowing flexibility of approach for the professor (LW);
- Importance of following instructional design principles for course quality (LW);
- Importance of feedback from peers on your course (LW, CR);
- Importance of keeping your course design simple (CR);
- Importance of letting go of the face-to-face teaching approach and embracing the technology (CM);
- Importance of providing the same opportunities for engagement, for community, for knowledge as in a face-to-face class (CM, CL);
- Importance of striking a balance between academic rigor and technological enhancement (GW).
There was one quality element that was mentioned more often than others, however. That was the contribution of defined, agreed-upon quality standards to the entire quality improvement project. Faculty saw different aspects of the value of standards, although drawbacks were mentioned as well. Several faculty (GW, LW) liked the emphasis on clearly-stated learning objectives. LW, a business management faculty member, praised the standards because it “…provides a construct, you know, that we can look at and evaluate ourselves against.” Another faculty chair, in Health Information Management, had done research on quality standards for online programs for her master’s degree. She commented:

> And one of the things that came out in my research was the quality initiative and everybody has to follow, you know, a particular quality [standard]. So I, I was very impressed with what Big Town is doing for what my research showed that you should be doing.

Some faculty noted, however, that a drawback of commonly-held quality standards is they set the de facto minimum standard for course quality. One faculty member I interviewed pointed out the inhibiting nature of a minimum standard: it encourages faculty to meet it and go no farther. Some felt the standards added to bureaucracy in their jobs: “I think it’s just some more hoops to jump through” (GW); “It’s words on paper” (CR).

Distance learning staff also had opinions about how course quality improvement took place for faculty. Instructional designer AE noted a potential vehicle for improvement: Group trainings with faculty and an experimental e-REdesign program for faculty development. AE saw improvement in course quality for faculty coming from two
elements of the workshops: faculty peer reviews using the Quality Matters rubric, and the social and collegial nature of the groups. AE noted that the workshops started a conversation about course design and development that was *taking place among the faculty themselves*. She commented on this in a final report on the pilot year of the e-REdesign workshops dated 9/11/2008:

The peer review process was very valuable. It provided feedback for the faculty from a respected source and it had the intended consequence of pressuring the participants into meeting their deadlines…

Without exception, the faculty enjoyed the collegial nature of the workshops. I heard a number of the people say that they feel like they’re working in a vacuum and it was helpful and fun to bounce ideas off of colleagues. I’m not certain how we can integrate this in future cohorts, but I do believe it was very valuable.

Conversations between faculty members about developing Web-supported courses, such as those described above, do take place at Big Town currently. My interviews with faculty chairs in both the Business Management department and the Health Information Management department revealed a rich dialogue about online teaching and course development that extends back for years in each department. These two departments have been early adopters of distance learning, however. Each department had developed a significant number of Web-supported courses in the early 2000s, independently of the distance learning department. Both disciplines emphasize computer skills in their courses of study, and this could also explain the early adoption of Web-supported course delivery by faculty and chairs in these departments.

Beyond particular departments and particular faculty, however, the conversation among faculty about how to develop quality Web-supported courses appears to be just
getting started at Big Town. AE acknowledged in an interview that in the recent past, the College as a whole was fairly unaware of the work that course designers in her department were doing with faculty to develop these courses. AE indicated that administrators such as RL and BW had been involved in a concerted campaign to tell the story of the collaborative work to faculty and chairs directly. This effort is likely to stimulate more faculty conversation about developing Web-supported courses.

As of the completion of my fieldwork, no Big Town faculty had yet volunteered to be trained as formal Quality Matters reviewers. However, Big Town’s formal membership in the Quality Matters consortium had just gotten underway when my fieldwork ended. In interviews with an administrator of the Quality Matters consortium in Ohio—and with Kay Shattuck, Quality Matters Director of Research—I learned that campuses using the approach undergo a gradual development process as faculty become trained and begin doing course reviews. As of this writing, only one or two campuses of the eight-campus consortium in Ohio had faculty members who were active as formal course reviewers.

**Quality for Staff**

For the Quality Matters process to result in quality courses from the design staff point of view is perhaps a more complex equation than for administrators or faculty. From RL’s point of view, Quality Matters quality rubric and peer reviews are part of a total package of people and processes, which must be able to measure success in nuanced, complicated ways. RL’s view may reflect the need – in a fluid, high technology
organization – for values and ethics to be an increasingly visible part of the conversation about work (Hecksher & Adler, 2006).

RL summed up the complexity of her course development operation in an interview conducted near the end of my fieldwork:

It’s too simple for any of us to think that the output of what we do are courses. I mean, of course we do courses. But that just barely scratches the surface of the work underway, the ideas being considered, the changes that are partly organic and partly technology-driven. And partly organizationally driven. You know, it’s like a swirl. We work in this creative swirl. I mean, my spin is – and my team accuses me sometimes of being Ms. Pollyanna – (laughs) being really optimistic. Anyway, I think the nature of our work is we’re paid to work in this swirl of change, that includes technology, teaching and learning practices changing. And thank God, evolving from their quite limited early roots… What faculty do and are expected to do is changing. What professional staff do and are expected to do are changing. The power dynamics are changing. Then you add the administrative need for – and legitimate need for – high output. (laughs) So it’s a swirl of things that we work with, and I think that’s what we’re paid to do.

The Quality Matters process is well integrated into RL’s new approach for the 2009-2010 academic year. All courses are designed around meeting Quality Matters standards. Faculty working in groups will participate in informal peer reviews of each other’s courses. A group of more experienced faculty members identified as mentors are targeted to conduct formal Quality Matters course reviews of the workshop-developed courses.

It is clear in my interviews with RL, though, that she still sees contradictions in the Quality Matters approach. Her biggest concern from the beginning has been its roots
as a faculty-centered project, with little acknowledgement of the role of professional staff in Web-supported course design.

I asked Quality Matters’ Kay Shattuck about where the role of professionals such as instructional designers fits in to the course review process. She responded that the project, under a FIPSE grant from the U.S. Department of Education, was always at its heart a faculty peer review system. But the Quality Matters vision always assumed, according to Shattuck, that faculty members would have access to a “…pocket or stable [of designers] or at least one person who can help the faculty person who is actually designing the course.”

In many ways, the success or failure of RL and her team’s re-design of the course development process at Big Town in 2009 will determine whether there is a designer available, with time to help faculty develop courses that meet the department’s high quality standards.

**Quality for Students**

My examination of the research literature supporting the Quality Matters rubric shows that it draws on current, learner-centered research (MarylandOnline, 2006). In this sense, quality for students is built into the forty design sub-standards that comprise the rubric. Logically, if peer reviews of courses show they meet the standards of the rubric at the eighty-five percent level, that course should meet the definition of a quality course as defined by students, as least to the extent their views of quality are represented in the research literature, and thus, in the design rubric.
My interviews with students at Big Town, and especially around their definitions of quality in course design, confirmed the relevance of many of the criteria used by the rubric. Table 6.2 below shows students’ criteria, in their own words, and the Quality Matters sub-standard that is associated with it:

<table>
<thead>
<tr>
<th>Student Criteria for a Quality Web-Supported Course</th>
<th>Associated Quality Matters Standard</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Having a good instructor that’s willing to…email your students”(DP)</td>
<td>V.3: Learner Engagement</td>
</tr>
<tr>
<td>“Discussion forums”(DP)</td>
<td>V.2: Learner Engagement</td>
</tr>
<tr>
<td>“Practice tests”(DP)</td>
<td>III.5: Assessment &amp; Measurement</td>
</tr>
<tr>
<td>“The availability of the professor” (PS)</td>
<td>V.5: Learner Engagement</td>
</tr>
<tr>
<td>“The communication of the professor”(PS)</td>
<td>V.3: Learner Engagement</td>
</tr>
<tr>
<td>“Projects”(PS)</td>
<td>V.2: Learner Engagement</td>
</tr>
<tr>
<td>“Videos”(PS)</td>
<td>VI.6: Course Technology</td>
</tr>
<tr>
<td>“The ability to work ’til midnight”(PS)</td>
<td>V.4: Learner Engagement</td>
</tr>
<tr>
<td>“I love the flexibility”(JE)</td>
<td>V.4: Learner Engagement</td>
</tr>
<tr>
<td>“Very up to date; they keep all the links working”(JE)</td>
<td>VI.4: Course Technology</td>
</tr>
<tr>
<td>“It’s just well organized”(JE)</td>
<td>IV.4: Resources &amp; Materials</td>
</tr>
<tr>
<td>“It allowed me to feel like I was in a classroom”(DM)</td>
<td>VI.2: Course Technology</td>
</tr>
<tr>
<td>“Relatively understandable over the ‘Net”(DM)</td>
<td>IV.4: Resources &amp; Materials</td>
</tr>
<tr>
<td>“…where you could actually do more face-to-face with your instructor”(DM)</td>
<td>1.2: Course Overview &amp; Introduction</td>
</tr>
<tr>
<td>“Reading the discussions”(DM)</td>
<td>V.2: Learner Engagement</td>
</tr>
</tbody>
</table>

Table 6.2  Student quality criteria and their associated Quality Matters sub-standard
But Quality Matters is more than a rubric; it is also a process. Will the process of instructional designer and faculty peer review of courses lead to the development of quality courses as perceived by students? This question also interested an expert on Quality Matters I talked to from another institution. Edward Bowen, a Dean in the Dallas College Community College District and a Quality Matters trainer in Texas, told me he felt students must be convinced the reviews are important to them. (E. Bowen, personal communication, June 23, 2009)

The Quality Matters Web site (www.qualitymatters.org) publishes the names of member institutions’ courses that meet the standards of a formal review. In theory, students in Dallas could peruse these reviews and use the information to make choices about which online courses to take. Once Big Town begins earning formal reviews of its Web-supported courses, students there could do the same thing.

Until the day comes that the Quality Matters process somehow embraces students in the course development, course testing, or course review process, their interests at Big Town will have to be represented by the faculty who teach them, and by the staff of designers who develop courses for them.

In the final chapter, I will reflect on the findings of my study around the issues of the use of the Quality Matters rubric and process at Big Town, and explore some implications for stakeholders in the process going forward.
Chapter 7

CONCLUSIONS AND IMPLICATIONS

Overview of the Chapter

In this final chapter, I review the findings of my instrumental case study of quality and course design for Web-supported education, conducted at Big Town Community College in 2009. In my six months of fieldwork, I had the privilege of looking closely at the ways in which faculty members and the staff of a distance learning department collaborated to design a Web-supported course, using the Quality Matters design rubric as a tool.

I discuss the ways in which the Quality Matters process—and its design rubric—supported and hindered faculty and staff as they developed Management 101: World Business. The Quality Matters rubric supported their work in significant ways—especially by helping create a shared object for their course design activity. However, it also led to contradictions in the activity—both between staff and faculty and the design standards themselves, and also between staff and faculty and the division of labor used at the college for designing a Web-supported course.

I then discuss findings around the question of how the management model in use at Big Town supports and hinders the implementation of the Quality Matters rubric. These findings include discussing the importance of the implementation of the Quality
Matters process at an institution, particularly in regard to whether managers and administrators treat the design standards as rules to be enforced, or as guidelines with which to begin a conversation about quality. Other findings concern the impact of increasing faculty and staff workloads due to Web-supported course design, and the importance of the working relationship between faculty members and instructional designers as they develop a course.

Finally, I review some of the implications of this study for other colleges and universities that also develop Web-supported courses and use quality standards. I discuss some areas in need of further research, especially the role of collaborative teams in future design efforts, and emerging mechanisms for coordinating those efforts, such as peer review. I discuss important limitations of this study’s design and methods. Lastly, I discuss trends in higher education around conceptions of quality in Web-supported education. The focus of this study and its findings is on the relationships of stakeholders within an activity system of Web-supported course design. It pays less attention to the outcome of the activity system, which is student learning. Because of the six-month time frame for fieldwork about the course design, I did not collect data about the actual teaching of the Web-supported course being designed, and its results for students.

**Finding #1:** The Quality Matters design rubric and process supported faculty and staff in the design of a Web-supported course by creating a shared object of activity.

In Engeström’s studies of learning and innovation in the workplace, he states that achieving a shared object of activity is the overriding collective challenge that workers and managers face. Cycles of expansive learning in the workplace are successful when they contribute to the formation of a shared object (Engeström, 2008).
Because of this emphasis in activity theory, I began my fieldwork with the assumption that efforts by faculty and staff to improve their course development process would revolve around creating a shared object of Web-supported course development. As I completed interviews, however, I was surprised to learn there already was much consensus around a shared object of course development. When I coded my interviews for “object orientation,” one of Engeström’s five suggested principles of activity theory that is relevant to studying fluid organizations, it appeared again and again for all course design participants. (Engeström, 2008). In my coding of email documents from the course design participants, as well as several recorded work conversations, object orientation also appeared frequently, without tensions or contradictions. This finding confirmed the analysis of the interviews regarding object orientation. Why was there already such agreement on what constituted a high-quality, Web-supported course?

I argue that the use of the Quality Matters design standards at Big Town bears much of the responsibility for the existence of a shared object. Because the rubric has been the “official” standards document for Web-supported course development since 2005, faculty and staff are widely familiar with it. As I reported in the previous chapter, my interviews revealed widespread support of the rubric and the standards by faculty and staff. Most frequently cited was its value in informing course developers of what was expected of them when developing a Web-supported course at the College.

John Sener, an original evaluator of Quality Matters when it received grant support, and a current member of its advisory board, explains the standards have been popular with faculty and staff nationally because they filled a vacuum on campuses:
The analogy I used today was education – classroom education – is sort of the rough equivalent of people living in huts. And just sort of running around, without any element of design. And then suddenly people came along and decided to consciously design buildings and dwellings. And then you had architects and that sort of thing. Quality Matters is sort of like that. It’s a design element in an area where previously I would argue none existed…Community colleges have course curricula and that sort of thing. But in terms of actual design and attention to design, I would say it’s not really been there that much. And so, it’s something where there was NOTHING. And so, in that sense, it’s all good.

If the adoption of the Quality Matters standards as the institutional definition of quality for Web-supported courses by administrators at Big Town did lead to a widely-shared object of activity by faculty and staff, then its contribution to course quality improvement has, in some sense, already been made.

**Finding#2:** Several contradictions for faculty and staff who used the design rubric resulted from the way it was implemented in the distance learning department—as rules rather than as guidelines.

My research revealed a difference in expectations between Big Town’s distance learning staff and the Quality Matters representatives and experts about how the process is implemented on campuses. My interviews with experts, and Quality Matters’ own publications, presented the process and rubric as a catalyst for a campus-wide discussion of Web-supported course quality. That was not how it was being used at Big Town.

There are several possible explanations for this. One is that Big Town is a newcomer to formal membership in the Quality Matters consortium in Ohio, and is just beginning to receive professional development from the organization. Big Town is also just beginning to have faculty and staff trained in doing formal course reviews. Perhaps as the College’s familiarity with the Quality Matters process of peer review grows, its use of the rubric
will change from a rules-based approach (used as a checklist) to more of a starting point for discussions about quality.

RL also indicated her interest in involving more people besides the instructional designer in the course review process. It is possible that she, too, is moving her approach toward Quality Matters’ professed goal of a peer review process for quality improvement.

**Finding #3:** A contradiction emerges for faculty and staff around Quality Matters’ lack of attention to the role of instructional designers and design staff in the development of Web-supported courses.

Quality Matters publications and articles describe its course improvement process as faculty-centered (MarylandOnline, 2006). I found few references in their literature to the role of instructional designers or design staff in that process. At Big Town, this lack of attention created a contradiction for RL, who highly values their contributions to course design.

The fact the Quality Matters formal review process is restricted to faculty members also created confusion at Big Town. In my interviews with Quality Matters experts Sener and Shattuck, I learned it was common for instructional designers to participate in informal course reviews at campuses around the country, although this was not the project’s original intent. It is possible that this apparent neglect of the role of instructional designers is due to a lag between Quality Matter’s official position on the issue and current trends in how it is actually being used on campuses.
**Finding #4:** The management model used at Big Town—collaborative teams—supports course design using the Quality Matters rubric by adjusting management processes to respond to change. But the model’s ability to keep up with production pressure may be reaching its limits.

As I reported in Chapter 5, staff and faculty who developed the Management 101 course generally felt supported by the collaborative teams management model as they designed the course. There were some signs, though, that staff members using the model were having difficulty adjusting to changes at the College and in the technology of distance learning. In particular, instructional designers and administrators pointed out difficulties in compensating for faculty members who lacked certain skills for developing Web-supported courses, or who lacked familiarity with the meaning of quality in Web-supported courses.

RL and her department identified these problems and made plans to address them with increased support for faculty professional development, as well as for more use of the Quality Matters peer review process. At the time my fieldwork ended, the success of these efforts was still to be determined.

**Finding #5:** Faculty, course designers, and administrators generally felt the management model of collaborative teams succeeded in supporting the development of Management 101. But these stakeholders also experienced contradictions.

For faculty, the contradictions revolved around their sense of a lack of agency or control for the course development process, and the workload associated with it. Activity theory recognizes agency as a critical issue for workers in modern, highly-networked organizations. Engeström defines agency as “…a notion of distributed agency not obsessed with control” and leans towards meanings of agency associated with “…drift, care, hospitality, and cultivation” (Engeström, 2008, p. 202).
But one faculty member developing Management 101 also reported feeling empowered by the management model. GW remarked approvingly on her new power to upload content and make changes to her course. Both faculty members complimented the course design team for doing much of the “heavy lifting” in creating the more technically demanding parts of the course such as graphics and quizzes.

In summary, faculty members developing Management 101 reported feelings of both a loss of agency in some parts of the development process and an increase of agency in other parts of the process, such as the use of Angel, the course management system. Additionally, there were parts of the design process, such as meeting accessibility standards, where agency was shared between staff and faculty. While this worked well in most cases, at times tensions emerged around who was responsible for making specific technical decisions about accessibility. As the department moves toward more professional development for faculty, and more faculty control over uploading content, shared responsibility for highly technical quality issues such as accessibility will likely continue to create contradictions for faculty and staff.

Finding #6: The Quality Matters rubric leads to the development of a quality product, as defined by faculty, course designers, administrators, and students, primarily through faculty professional development and exposure to instructional design principles, especially those contained in the Quality Matters design standards.

Dean of Distance Learning BW credits faculty exposure to instructional design principles—through exposure to the Quality Matters standards—with helping improve quality in Web-supported courses. She and manager RL also credit the department’s successful team approach to instructional design for course improvements. However, all the above places a burden on the distance learning department to increase this
professional development for faculty in the future. When I finished my fieldwork, it was unclear whether increased professional development for faculty would succeed in keeping up with the pressure to deliver new Web-supported course and programs in 2010.

Students’ views of quality are represented in the course design process primarily through the use of the design rubric and through faculty and staff’s long experience in anticipating students’ needs. My interviews with students showed a broad agreement between their views of a quality Web-supported course design and the attributes of quality in the design standards, especially in the area of learner engagement. Students were not involved in the design efforts I studied, however. Learner and user-centered instructional design practices (Sengers, 2005; Thiagarajan, 2007) would recommend far more student involvement in the course design process, and this could be a fruitful area for innovation at Big Town in the future.

**Implications and Areas for Future Research**

**Likely Audiences**

There are several professional and scholarly audiences for this study. They include:

- Staff and faculty who develop Web-supported courses at Big Town Community College;
- Staff, faculty, and administrators at other colleges and universities with distance learning departments and quality improvement strategies;
• Activity theorists who are interested in applying CHAT theory to problems in distance education;
• Instructional designers.

This study has implications for the staff and faculty members at Big Town who develop Web-supported courses, principally around the future of the management model in place. I suggest they re-evaluate this model based on current trends in high-technology workplaces, especially those trends related to working in highly-networked organizations.

In the book *From Teams to Knots*, Yrjö Engeström makes the case that today’s high technology workplaces – far-flung, fluid organizations that emphasize knowledge creation and innovation – have different needs for teams at work (Engeström, 2008). They may be moving beyond the use of teams as an organizing principle. He begins to use the term *knotworking* to stand for the collective, problem-solving activity once conducted by teams in organizations. In high technology, fluid organizations, knotworking relies on negotiation as a means of coordinating activity:

Negotiation is a central coordinating mechanism of the distributed agency required in knotworking within social production. Negotiation is required when the object of the activity is unstable, resists attempts at control and standardization, and requires rapid integration of expertise from various locations and traditions. Negotiation is more than an instrumental search for a singular, isolated compromise decision. It is basically a construction of a *negotiated order* (Strauss, 1978) in which the participants can pursue their intersecting activities. (p. 230)
Engeström goes on to refer to *social or peer production* as a growing influence on the organization of workplaces, which he defines by citing network theorist Yochai Benkler (2006):

…a new modality of organizing production: radically decentralized, collaborative, and non proprietary; based on sharing resources and outputs among widely distributed, loosely connected individuals who cooperate with each other without relying on either market signals or managerial commands. (p. 60)

I argue that the management model for Web-supported course development at Big Town, especially with its embrace of the Quality Matters rubric and processes, is moving in the direction of social or peer production. Evidence for this comes from several areas: The rapid evolution of the technology in use, approaching the descriptions Engeström uses of “runaway objects”—objects of activity that are highly unstable; the possible resistance of the course development work to being “managed” by teams in the traditional sense; and the increasingly distributed nature of the development work and its sources of content – across the campus, the borders of the College, and across the world. Faculty who develop course materials using computers from home are one example of this last trend, as are faculty and staff who use Internet-based video such as those found on YouTube in their courses.

In my fieldwork, I observed a department and a management style I considered extraordinarily responsive to the above issues. Still, at the end of six months, RL felt the quality-versus-quantity contradiction she faced at the beginning of the year was still a serious, unresolved issue.
The organizational learning I documented at Big Town around their improvement of the managing of course development, while significant, did not reach the level of expansive learning that activity theorists credit for transforming entire fields and institutions (Engeström, 2008). Whether such transformative learning around the development of Web-supported course is possible at campuses such as Big Town, and what it might look like in the future, is a worthy topic of future research.

This study also has implications for other colleges and universities with distance learning programs and quality improvement strategies. Chief among them are the following:

- The way in which a college implements standards such as Quality Matters—as rules to be followed or as guidelines to be discussed—makes a difference to faculty and staff. By implementing a rubric as rules, colleges may be inadvertently stifling important discussion about the nature of quality in Web-supported course design. Colleges can avoid this drawback by emphasizing the importance of starting conversations about quality—ongoing conversations between stakeholders that use quality standards as a starting point rather than an end in themselves.

- The adoption of quality standards as official standards can also have the drawback of creating a minimum standard—a ceiling effect—for quality in a Web-supported course. This has the drawback of ruling alternative course formats, or exceptional designs, as unnecessary or out-of-bounds. Once more, colleges can avoid this problem by treating quality standards as guidelines rather than as rules.
• Colleges implementing quality standards and rubrics should pay attention to the role of instructional designers and design staff in the pursuit of quality. Faculty-centered approaches such as Quality Matters need to do more to embrace the key relationship between instructional designers and faculty members. For example by including instructional designers in formal peer reviews of courses, Quality Matters can embrace a trend that is already underway at some institutions.

• Finally, production pressure and increasing workloads—especially for faculty and staff—threaten quality efforts. Colleges using quality approaches would do well to carefully consider workload issues when creating quality best practices for their institutions.

The issue of starting conversations about quality at a college or university deserves further discussion. The literature on quality improvement in face-to-face course designs supports conversation, reflection, and peer review as tools for course improvement (Richlin, 2006). Constructivist learning theory stresses the importance of conversations about difficult cases to the development of the apprentice learner (Lave & Wenger, 1999). Taken from my research, questions such as these could be the starting point for such conversations:

• What counts as an innovative Web supported course design?
• Who controls the course design process – faculty or instructional designers?
• How can course designers and staff gain more respect in the eyes of faculty?
• How comfortable are faculty and staff with the issue of conducting peer reviews of courses designed by others?
This last topic of peer review of Web-supported courses emerged as a tension in my research at Big Town. Quality Matters promotes a wider, formal peer review process whereupon faculty and staff submit courses for review by trained reviews both inside and outside the state. How valuable will these formal peer reviews be to the faculty and staff who design a course? How valuable will the peer review process—and the corresponding Quality Matters seal of approval—be to the students who plan to take the courses? These are questions worthy of further investigation.

Conversations about quality will likely be different at community colleges and at four-year institutions. One difference in the conversations will likely occur around issues of student access and admission to Web-supported courses. Community colleges in North America are typically open enrollment institutions (Cohen, 1990), so conversations around student preparation or course prerequisites for Web-supported courses may be impossible at community colleges. This was the case for the faculty who developed Management 101. At more selective, four-year institutions, the same topic may be open for discussion. Interestingly, the topic of whether to treat the Quality Matters standards as rules or guidelines is a topic of conversations at both two-year and four-year institutions in Ohio, based on discussions I witnessed at a conference session involving Ohio’s Quality Matters consortium in 2009.

Activity theorists may also benefit from this study, particularly for its use of Engeström’s later approaches to analyzing highly-networked, fluid organizations. In particular, his recent work explores unstable objects, and makes the claim that issues of agency—and successfully sharing it within networks—will overtake the creation of a
shared object of activity as the most important achievement of learners at work (Engeström, 2008).

This study can be viewed as a test of the explanatory power of Engeström’s latest approach. It succeeded in identifying issues and contradictions around the agency of faculty and staff in designing Web-supported courses, particularly around issues of control of the process (who’s in control, faculty or staff?) and the ability of collaborative teams to coordinate the process.

By using the attributes Engeström recommends in examining fluid organizations, and coding for them, I did reveal tensions and contradictions for stakeholders in designing Web-supported courses, and identified opportunities for innovation and expansive learning. Recent critics of Engeström’s work have suggested his theory does not make a successful transition to highly-networked organizations using digital technology (Ruckriem, 2009). This study may counter that criticism, by showing that an organization creating Web-supported courses—inhomely a digital work product—can be successfully analyzed and understood within a framework of activity theory.

Finally, this study holds interest for instructional designers who create Web-supported courses. The research is suggestive about trends affecting instructional designers, including:

- How will quality improvement efforts such as Quality Matters—which can lead to cycles of course improvement and re-design—affect the job of the instructional designer? Indications from this study are that the designer’s role grows in importance because they offer a path to course improvement for faculty. In other
words, the quality improvement process demands more of the kinds of skills that instructional designers have, and their value to the effort increases.

- What impact will quality improvement efforts that emphasize increased professional development for faculty—such as those at Big Town—have for instructional designers? This study indicates that increasing professional development for faculty improves course quality, but also generates questions about the design roles of faculty, and how the design tasks are divided between faculty and staff.

- Finally, how do design standards and rubrics change the work of instructional designers? Most faculty and staff in this study felt that standards clarified their design goals by helping them create a shared object for their work. However, some worried about a “ceiling effect” created by standards that impose a de facto minimum standard on course designs. They were concerned this could inhibit faculty and staff from doing exceptional work. One implication for instructional designers is they may need more instruments—more tools—to foster discussions of these quality issues with faculty. Perhaps a short list of questions for discussion about quality could be useful to designers in their relationships with faculty as they apply standards (A. Anthony, personal communication, March 3, 2010).

Although instructional designers and human computer interaction designers use lists of design strategies in their work (Gay & Hembrooke, 2004; Sengers, 2005), the use of detailed design rubrics such as Quality Matters for designing Web-supported courses is a new practice. Will designers and faculty members find this practice constraining, or even coercive? The use of a different
kind of standards—curriculum content standards—in pursuit of educational quality in K-12 instruction has certainly raised concerns about coercion, conformity, and loss of agency for teachers (Kohn, 2001). Although the debates in this area are entirely different from those I discuss in this study, some of the language—for example the phrase, “alignment to standards,”—is similar and can color the discussion of the use of design standards in higher education. I hope this study leads to further research on the effects of the use of design standards on the stakeholders in Web-supported education. In sum, fruitful research questions to pursue will include more detailed studies of how design rubrics mediate the work of faculty members and instructional designers, particularly in regard to exploring the overlapping boundaries of their work together.

**Limitations of the Study**

This study has a number of limitations, stemming primarily from my access to the research site and from my own background as a researcher.

The limitations with regard to access have to do with both the kinds of courses I studied and with the interview sample. The course I analyzed in detail, along with two other courses I conducted interviews about, represented only two departments at Big Town: Management and Health Information Management. The Distance Learning Manager at Big Town determined which courses I could have access to, based on the courses scheduled to be developed during the quarters of my research, on my requirement that they be courses from entire programs being put online, and not “one off” courses, and quite likely on her sense of which courses would put the department in the most...
favorable light. As a result, all three courses were related to management disciplines. This narrowly restricted my view of the content being developed for Web-supported courses at Big Town. Additionally, I learned as my research progressed that both departments I was studying had been early adopters of Web-supported education at the College (although one department’s experience was gained independently from the Distance Learning Department).

My sample of students to interview at the College also suffered from limitations due to access. I solicited student participants through a poster that described the research and offered a free ten-dollar gasoline card to participants. I originally tried to post this notice in areas where many students gathered, such as the main library. College officials, though, restricted my posting of the announcement to two computer labs in two buildings, on the grounds that they restricted posters from outsiders such as me. As a result, my sample of students was restricted to those who used computer labs on campus. This meant my sample ignored students who work exclusively from home and never visit campus. It also restricted my interviewing to students who frequently use – or even work in – computer labs. They would likely be more comfortable with technology, for example, than students from other backgrounds.

A third limitation to the study stems from my own professional background as a manager. Because of my familiarity with some management issues in multimedia environments, I may have put more emphasis on these issues in my work, to the exclusion of others. It also meant I felt a good deal of affinity to managers in the Distance Learning Department at Big Town, and particularly to the department manager, RL, with
whom I had more contact than most other informants. This, in turn, gave her views more weight in my study than those of other staff and faculty members whom I interviewed.

**Conceptions of Quality and Change in Higher Education**

Throughout this study, I have emphasized the importance of coupling discussions of quality in Web-supported education with discussions of the meanings and purposes of higher education. Several researchers of conceptions of quality in higher education have noted a shift away from external measures focused on quantitative, institutional data toward more learner-centered conceptions and approaches (Barnett, 1992; Fresen, 2005). English researcher Ronald Barnett calls these approaches to quality *developmental* approaches in that they focus on students’ “…educational development, and the quality of that development” (Barnett, 1992, p. 62).

In Ohio, there is also some evidence of trends toward developmental, learner-centered assessments of quality. The Ohio Strategic Plan’s call for the use of the National Survey of Student Engagement as a measure of quality at two and four-year institutions is evidence of this more learner-centered approach (Ohio Board of Regents, n.d.).

The trend toward a developmental view of quality in higher education appears to be a good fit with quality improvement projects such as Quality Matters. With its emphasis on both a research-based design rubric and on a process of peer review, Quality Matters offers a forum for conversations about quality in Web-supported education among all stakeholders. If, as Quality Matters’ Kay Shattuck maintains, the conversations promoted by the project are “…constructivism at its best,” then the model promises to move away from conceptions of quality influenced by corporate approaches, and toward
conceptions of quality rooted in the educative process. This conception of quality and quality improvement promises to nurture a management model at Big Town Community College already firmly committed to collaboration between stakeholders in the service of student learning.

If educators and Quality Matters advocates such as Ed Bowen of Dallas County Community College District are heard, students will become more involved in and central to these conversations (E. Bowen, personal communication, June 23, 2009). Their involvement in the conversation can begin by becoming more aware of what formal Quality Matters reviews are all about, and why some courses at their institutions are recognized as meeting these standards while others do not. Other stakeholders need more involvement as well, such as instructional designers and design staff, and more acknowledgment in the Quality Matters official review process.

As these conversations build and grow at institutions of higher education across the country, they promise to elevate the discussion of quality in Web-supported education to a new level of intensity—and of care for the learning process.
APPENDIX A
CONSENT FORM

The Ohio State University Consent to Participate in Research

Study Title: From the Ground Up: Conceptions of Quality in Course Design for Web-Supported Education

Researcher: Richard Voithofer

Sponsor: None

This is a consent form for research participation. It contains important information about this study and what to expect if you decide to participate.

Your participation is voluntary.

Please consider the information carefully. Feel free to ask questions before making your decision whether or not to participate. If you decide to participate, you will be asked to sign this form and will receive a copy of the form.

Purpose: We would like you to participate in a study by an Ohio State University graduate student about distance education and course quality. The study is looking at how
distance education courses are created, and how faculty, staff, administrators, and
students think about what goes in to a quality course. We are interested in your
perspective on this issue.

**Procedures/Tasks:** If you agree to participate, we may ask to interview you and record
the interview on audio or videotape. We may also ask to look at documents you’ve
produced as part of developing a course, if you were involved in its creation. We will not
ask you for any confidential student or staff information. We may also request to
interview a second time, to answer remaining questions we might have.

**Duration:** Each interview should take about forty-five minutes of your time.
You may leave the study at any time. If you decide to stop participating in the study,
there will be no penalty to you, and you will not lose any benefits to which you are
otherwise entitled. Your decision will not affect your future relationship with The Ohio
State University.

**Risks and Benefits:** Possible risks from this study include invasion of privacy, which the
study works hard to prevent by using assumed names for all participants and their places
of work. You will not benefit directly from participating in the study.

**Confidentiality:**

Efforts will be made to keep your study-related information confidential. However, there
may be circumstances where this information must be released. For example, personal
information regarding your participation in this study may be disclosed if required by state law. Also, your records may be reviewed by the following groups (as applicable to the research):

• Office for Human Research Protections or other federal, state, or international regulatory agencies;
• The Ohio State University Institutional Review Board or Office of Responsible Research Practices;
• The sponsor, if any, or agency (including the Food and Drug Administration for FDA-regulated research) supporting the study.

**Incentives:** If you are a student participant in this study, you will receive a free $10 gas card for your participation. You will receive this card even if you should choose not to complete the interview.

**Participant Rights:**

You may refuse to participate in this study without penalty or loss of benefits to which you are otherwise entitled. If you are a student or employee at Ohio State, your decision will not affect your grades or employment status.

If you choose to participate in the study, you may discontinue participation at any time without penalty or loss of benefits. By signing this form, you do not give up any personal legal rights you may have as a participant in this study.

An Institutional Review Board responsible for human subjects research at The Ohio State University reviewed this research project and found it to be acceptable, according to applicable state and federal regulations and University policies designed to protect the rights and welfare of participants in research.
Contacts and Questions:

For questions, concerns, or complaints about the study you may contact
Gary Greenberg.
Tel: 937-767-1517 or email: Greenberg.89@osu.edu

For questions about your rights as a participant in this study or to discuss other study-related concerns or complaints with someone who is not part of the research team, you may contact Ms. Sandra Meadows in the Office of Responsible Research Practices at 1-800-678-6251.

If you are injured as a result of participating in this study or for questions about a study-related injury, you may contact Gary Greenberg. Tel: 937-767-1517 or email: Greenberg.89@osu.edu

Signing the consent form

I have read (or someone has read to me) this form and I am aware that I am being asked to participate in a research study. I have had the opportunity to ask questions and have had them answered to my satisfaction. I voluntarily agree to participate in this study.

I am not giving up any legal rights by signing this form. I will be given a copy of this form.
Investigator/Research Staff

I have explained the research to the participant or his/her representative before requesting the signature(s) above. There are no blanks in this document. A copy of this form has been given to the participant or his/her representative.
<table>
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APPENDIX B
INTERVIEW PROTOCOL

Interview Script: I’d like to go over the details of the study. (The interviewer reviews information about the research project, the interview protocol, and the consent form.) If the informant agrees to be interviewed, the interviewer asks, “May I make an audio recording of the interview?” If consent is granted, the recorded interview begins.

Questions

1) How does your institution define or describe quality when it comes to distance education?

2) Who should be involved in defining quality in distance education?

3) How and to what extent does your institution use design teams to develop distance education courses?

4) How does the course design team participate in defining quality in distance education?

5) How does the institution’s definition of quality – the Quality Matters rubric - help or hinder innovation? [for faculty:] How does the rubric help or hinder your responsibility for designing a course?

6) What makes a good team? What makes a bad team?

7) What does successful collaboration by a team look like? What does successful project management look like?
8) What tensions exist at your institutions around the notions of quality and distance education course development?

9) Some quality researchers in higher education have written about the risks of developing a “culture of compliance” as universities pursue quality in their activities. Do you feel this is a risk in the realm of distance education? Why or why not?

10) What makes quality *quality* in distance education?

11) What defining properties or characteristics do people attribute to quality? When do they do so?

12) How do you experience quality yourself in a distance education course design? What do you do about it when you experience it?
APPENDIX C
THEMATIC CODE BOOK

Thematic Codes Used in the Study

Information Passing
Contradiction
Tension
Design Quality
Design Strategies
Innovation
Interaction with Faculty
Interaction with Students
Interaction with Designer
Management Strategies
Student Satisfaction
Designer Satisfaction
Resistance
Working Conditions
Faculty Ownership
Production Pressure
Questioning
Professional Development
Higher Education Quality
Higher Education Strategy
APPENDIX D
INTERPRETIVE CODE BOOK

Interpretive Codes Used in the Study

Object Orientation

Historicity

Mediation by Tools & Signs

Contradictions & Deviations as a Source of Change

Mutual Constitution of Actions and Activities

Distributed Agency
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