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An Instrumental Case Study of Administrative Smart Practices for Fully Online Programs and Degrees

Charles V. Gregory
University of Nebraska - Lincoln, charlie.gregory@live.com

An Instrumental Case Study of Administrative Smart Practices for Fully Online Programs

and Degrees

by

Charles V. Gregory

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Charles V. Gregory, Ed.D.

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Advisor: Brent Cejda

The purpose of this instrumental case study was to explore administrators' responses to significant administrative challenges of fully online programs and degrees. The case was a single public community college located in the Integrated Postsecondary Education Data System Plains Region.

In this study Bardach's (1994) method to identify and extrapolate smart practices used to resolve administrative challenges arising from an institution's online and distance education programming. The concept of smart practice aims to exploit or take advantage of some latent opportunity for creating value.

Organizational culture was identified to be of significant influence in identifying the value the institution placed on a practice, action, activity, or approach to resolving an issue, therefore, directly affecting the value qualifiers for smart practices identified.

Four smart practices were identified: (a) adequate student services for eLearning students; (b) adequate assessment of eLearning classes; (c) addressing accessibility and universal design; and (d) support staff needed for training and technical assistance.

Also of significance five themes were identified: (a) adaptation; (b) collaboration; (c) creativity; (d) technology leveraging; and (e) budget. The themes provided an

expanded understanding of the institution's organizational culture to more fully characterize the smart practices.

Utilizing Bardach's (1994) method has reasonable probability to aid higher education institutions in the search for solutions to administrative challenges affiliated with online programs and degrees.

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Dedication

The success of this undertaking would not have been as likely without the support and understanding of my family, thank you.

To my sons, Logan and Grant, who made sacrifices as well. I hope you understand why I could not always be there. Pursue your dreams. Take the road less traveled.

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Chapter 1

Introduction

Student demand for online courses continues to grow at a rate that outpaces the

demand for on-campus courses (Allen & Seaman, 2014). Between 5.5 million

(Kolowich, 2014) and 7.1 million (Allen & Seaman, 2014) students were taking at least

one online course in the fall of 2012. Within the population of college students who have

taken a class online, 15% have earned a degree online (Parker, Lenhart, & Moore, 2011):

the student was never required to come to a campus location as part of a class or for

ancillary services, i.e., registration, financial aid.

In the past decade, distance education has become synonymous with the internet

(Cejda, 2010; Relan & Gillani, 1997) for delivery of online education. Internet

technologies have evolved to provide an easy, powerful, and economically sound

medium for distribution of educational content (Johnson, Benson, Duncan, Shinkareva,

Taylor, & Treat, 2004) which has made distance education an attractive option for

community colleges. Based on the Carnegie Classification of Institutions of Higher

Education (CCIHE), 1,504 of 1,685 of the nation's associate's-level institutions have

offered courses or programs online (Allen & Seaman, 2014).

When categorized by the level of credential, 76% of community colleges offered

an online certificate option and 90% offered at least one online degree (Lokken &

Mullins, 2015). Community colleges offered a number of different associate degrees to

online students in 2012. More than 56% of community colleges offered Associate of

Arts degrees, 35% offered Associate of Science degrees, 42% the Associate of Applied

Science degrees, and 27% the Associate of General Study degrees (Lokken & Mullins, 2013).

President Obama, in his first State of the Union address, set an ambitious goal, stating: "by 2020, America will once again have the highest proportion of college graduates in the world" (Obama, 2009). His remarks underscored the direct linkage of educational attainment to successful competition in the global economy. Obama went further, emphasizing, "every American will need to get more than a high school diploma" (Obama, 2009). To meet the goal set by President Obama, more than eight million college graduates with certificates, diplomas, associate's or bachelor's degrees will be needed. For community colleges, their requisite contribution toward President Obama's goal of eight million degrees or certifications equates to increasing the number of credentials awarded by 60% if the goal is to be attained (Mullin, 2010; Templin, 2011).

Online education provides a means to contribute to this goal, but also presents unique challenges. Enrollment in online courses has continued to outpace enrollment for campus-based courses. However, retention in online courses remains a major issue in all classifications of higher education institutions (Lokken & Mullins, 2015). Some community colleges report that dropout rates for online classes are 21% higher than in face-to-face classes (Aragon & Johnson, 2008). The lower retention rates have resulted in state and federal policies and initiatives that are directed towards increasing accountability and transparency. When considered along with the more rapid growth of online programs, retention is an increasingly important issue (Berger, Ramirez, & Lyons, 2012).

Although President Obama's comments placed a challenge before the American public, advocating for completion of college credentials is not new. The Association for Career and Technical Education's (ACTE) position paper, *Expanding Opportunities* (2007, p. 2), addressed the need to encourage completion of coursework to enable adults "quickly to obtain skills for the workplace." More recently the American Association of Community Colleges (AACC) suggested that shortening time-to-degree would enhance degree completion (Johnson-McPhail, 2011).

There is also a growing realization that there are unique administrative challenges to developing, implementing and sustaining online degree programs effectively and efficiently (El-Mansour, 2011; Patterson-Lorenzetti, 2011). Fred Lokken, the former Chairman of the Instructional Technology Council, asserted these challenges exist due to a lack of precedent about how online education fits into the larger academic scheme of community colleges (Patterson-Lorenzetti, 2011). Contributing to the proper placement of online education within a community college is its integration into the colleges' strategic plans.

Adams (2003) and Levy (2003) stressed that there has been a lack of strategic planning to guide the process of developing and implementing online offerings. Numerous factors have contributed to the lack of strategic planning. Online education is affected by change in, and availability of, technology (Levy, 2003). Demand for technology has been driven by the cultural desire to have the newest, fastest and most convenient electronic devices. This pursuit of technological currency combined with the paradigm shift of teaching to learning (Rogers, 2000) has made it difficult for

administrators to fully invest in technology used to deliver online programs as it can quickly become outdated.

In its early stages, online education was seen as second-rate and not a viable alternative to traditional models (Sherritt, 1996). Adams, DeFleur and Heald (2007) found 96% of hiring managers preferred applicants with traditional, rather than online degrees, validating the perceived lesser value of degrees earned online. Due to the perception of online education being lower quality, like technology, institutional administrators were not willing to support distance technologies with adequate personnel, supplies, and reasonable operating budgets. Over time, development of quality frameworks and rapid growth of online programs have changed these perspectives (Mariasingam & Hanna, 2006).

As growth of online education programs outpaces that of on-campus programs, lack of effectiveness and efficiency may influence the quality of the whole institution. El-Mansour (2011) suggested five components in the operation and delivery of online programs that could influence institutional quality: (a) infrastructure and space allocations; (b) faculty training; (c) faculty workload; (d) student preparedness; (e) academic honesty; and (f) copyright. Each of these five factors are summarized individually in the narratives below.

Infrastructure necessary for delivery of online programs requires additional internet bandwidth, development of instruction for training of faculty, and staff trainers. Additional staffing is needed to provide student services for distance students (Levy, 2003). Faculty need instruction on modification of current curriculum and assistance in

development of new curriculum in order to achieve quality in online courses, programs and degrees. Faculty are also in need of administrative support to provide training on technology used for delivery of online classes (Inman, Kerwin, & Mayes, 1999). The additional staff required to support new infrastructure and faculty needs, itself, may also require additional infrastructure resources (El-Mansour, 2011).

Faculty workload may be impacted in several ways. First, time required to interact and keep students engaged increases. Traditional classroom interaction between the instructor and student is generally a one-to-many relationship; however, in online instruction, interaction is often one-to-one. Second, workload can be impacted by student preparedness, or more specifically, lack thereof (Valentine, 2002). Many students, especially adult students, must be initially guided to ensure they remain active participants in class discussions via chat rooms or discussion boards, and to encourage regular interaction with classmates (El-Mansour, 2011) and student retention (Carr, 2000).

Issues of academic honesty and copyright are also a concern. Although these topics may individually impact faculty workload, maintaining academic honesty potentially requires additional guidelines which must be included in syllabi, in addition to implementation of detection measures. These measures commonly require hardware, software, and staff to install, monitor and keep them operational. Copyright generally requires training for faculty to assure understanding and compliance. For students these items are more directly tied to plagiarism. These changes individually, and combined, may reduce the effectiveness and efficiency of the institution in various ways through

impact on budget, new and reallocation of staff, additional work assignments to existing employees, and/or modification of negotiated faculty, i.e., union agreements (El-Mansour, 2011).

The common denominator in these challenges is scarcity of resources. Limits to human and financial resources are common to most publically funded institutions. These challenges provide incentive for the online program administrator to create successful administrative practices as well as to search out successful administrative practices at other institutions' online degree programs. These external practices can be evaluated for possible adaptation and application.

In 2004, the Instructional Technology Council created a survey to document trends, issues, and challenges facing administrators of distance learning programs (Lokken & Mullins, 2015). The Instructional Technology Council survey has been repeated annually since its inception. The section of the Instructional Technology Council survey with particular implication for this study identifies the categories of greatest challenge for administrators of online programs.

Over the survey's 10-year existence, the number of categories included in the section on administrative challenges has expanded from the original 8 to 12. Categories, ordinal for the 2014 reporting year, are:

- adequate student services for distance education students;
- support staff needed for training and technical assistance;
- adequate assessment of distance education classes (introduced as an option in 2009);
- operating and equipment budgets;
- state authorization regulations (introduced as an option in 2011);
- adequate administrative authority;
- faculty acceptance;

- student authentication (introduced as an option in 2011);
- compliance with new financial aid attendance requirements (introduced as an option in 2011);
- organizational acceptance;
- adequate space for testing and technical assistance;
- student acceptance. (Lokken & Mullins, 2015)

When considering the basis of need to meet growing demand for online programs and degrees, along with the extent of current research in the preceding outlined areas taken as a whole, there has been an identifiable lack of research on successful administrative practice. Exploring successful administrative practices, then using Bardach's (1994) smart practice extrapolation processes to identify the four key components, provide opportunities for those administrative practices to be adapted and used at other institutions facing similar challenges.

These individual topics, when combined, serve to draw attention to an area of missing research. Increased student demand for online programs, separate from identification of need, as well as heightened political awareness of need for graduates, demonstrate a need for increased speed and quality of supplying "product." In this case, education and the resulting graduate is that product. The key concern is how professionals find ways to improve overall product quality without increases in funding, or at best minimal increases. It is important to focus on the need to develop solutions in novel ways, ways that increase effectiveness and efficiency, and that can ultimately benefit online delivery of programs and degrees.

These topics individually, and more importantly collectively, validate the need for this study. This need is further underscored given that surveys are done that identify areas of challenge for administrators of online programs but do not offer solutions for

those challenges. Smart practice with its method of extrapolating potential solutions from source institutions for application at target institutions, offers an appropriate, efficient and needed method to accomplish this goal.

Purpose of the Study

The purpose of this study was to identify how administrators of community college online programs solved administrative challenges they faced in developing, implementing, and sustaining online certificate, diploma, and degree programs. Practices identified were explored to determine how the practices developed, then evaluated to determine if the practice qualified as a smart practice according to Bardach's (2004) model.

Existing Research

A review of the literature reveals research focused on a variety of institutional issues related to online education: administration and administrative support (Carstens, 2010; Caudill, 2010; Indiana Commission for Higher Education, 2010; Paolucci & Gambescia, 2007; Schauer, 2010); development of classes and programs: (Amrein-Beardsley, Foulger, & Toth, 2007; Chapman, 2010; Howell, Williams, & Lindsay, 2010; Restauri, 2004); marketing (Abel, 2005; Eisenbarth, 2003); quality and satisfaction (Burks, 2010; Gallogly, 2006; Mariasingam & Hanna, 2010; Servier, 2010; Shelton, 2010); technology (Annison, 2002); and providing student services (Crowson, 2010; Washington, 2010).

The review also revealed research focused on teaching and learning challenges facing students and faculty in online education. These topics included ethics (Anderson

& Simpson, 2007); student attributes e.g., communication skills, computer literacy, motivation, persistence, self-efficacy (Liu, Gomez, Khan, & Yen, 2010); student-student and teacher-student interaction (Laves, 2010; Lupton, 2010; Orellana, 2006; Veale, 2010); and student success (Little, 2010; Shepperd, 2006).

As an example of these research topics that have focused on resolution of a wide array of specific issues related to online education, Lyons and Burnstad (2007) reported on best practices to support part-time instructors both on-campus and online. Practices included: (a) orientation to the institution; (b) basic training on teaching and classroom management; (c) creation of a sense of belonging to the institution; (d) initial and ongoing professional development; and (e) recognition for quality work. These best practices were operationalized as a series of workshops implemented at the University of Central Florida spanning an academic year and were delivered using multiple methods of technology. A separate example of best practice was documented from the University of Louisville where training was developed for adjunct faculty based on a self-identified needs assessment survey.

While best practices are typically identified as seen in Lyons and Burnstad (2007) and the other studies referenced, the research stopped short of identifying underlying administrative best or smart practice. To reveal those administrative best or smart practices that may exist, further exploration and study must be undertaken.

Research on the effectiveness of practices which address administrative challenges of online programs is limited even though the Instructional Technology Council survey identified specific categories of administrative challenges for more than a

decade (Lokken & Mullins, 2015). One of the few documents to include limited insight into effective administrative practices was based on the results of a survey by Abel published in 2005.

Administratively linked best practices were identified as part of a larger survey of 21 public nonprofit, and for-profit, two- and four-year postsecondary institutions considered to have successful online programs. These administrative best practices were categorized as executive leadership and support, and, faculty and academic leadership commitment (Abel, 2005). A shortcoming of the survey, however, was the lack of further exploration beyond simple categorization of individual best practices that were identified.

Abel (2005) suggested online programs were supported in a variety of ways that can change from institution to institution. Those achieving higher success did so utilizing a "programmatic approach with a commitment to fully online programs" (Abel, 2005, p. 2). The survey identified 10 distinct categories of challenge to online programs. In three categories of the Abel (2005) survey -- technology learning curve for faculty, developing content of quality and variety, and cost/funding -- aligned or had significant overlap with two categories identified in the Instructional Technology Council survey (Lokken & Mullins, 2015): support staff needed for training and technical assistance, and operating and equipment budgets. This was an interesting finding given the Abel study was published in 2005 and the Instructional Technology Council survey in 2015. This 10-year gap indicated that while best practices are being reported relative to specific issues,

potentially underlying administrative best or smart practice continued to receive little attention.

Few resources included administrative components addressing administrative challenges related to development of quality online programs. Shelton and Saltsman's (2006) book suggested seven key areas of attention for the administrator of online programs. Identified areas that impacted the effectiveness of online education were: (a) leadership and strategic planning; (b) policy and operation; (c) faculty; (d) online student services; (e) online student success; (f) technology and the courseware management system; and (g) marketing the online program.

Baghdadi (2011) stressed that administrators of online programs should focus on providing support for faculty and staff charged with development of the online curriculum. Providing high levels of support created confidence in the quality of online curriculum. Baghdadi drew on Porter's, as cited in Baghdadi, five principles for developing online programs to demonstrate that curricula and faculty were the key factors in effective online education.

Newman (2003) compiled a document comprised of 17 categories of suggested best practices in online education ranging from technology issues to the theoretical framework of learning to the evaluation of online courses and programs. Of the 17 only one, Administrative and Staff Issues, expanded upon administrative best practices. These administrative best practices were: (a) implementation of distance education; (b) budgeting policies; (c) establish staff; (d) training and support for teaching staff; (e) training and support for students; and (f) technical and administrative support.

In the preceding studies, Abel (2005), Shelton and Saltsman (2006), Baghdadi (2011) and Newman (2003), each reported on best practices, categories of challenge and areas of importance that impact the effectiveness of online programs. However, as also referenced earlier, none included research meant to identify underlying administrative best or smart practice.

Since its inception in 2004 the aforementioned Instructional Technology Council Distance Education Survey has identified key issues related to the administration of distance education programs (Lokken & Mullins, 2015). The Instructional Technology Council Distance Education Survey groups questions into four categories: (a) general information; (b) administrative; (c) faculty: and (d) students (Lokken & Mullins, 2015).

Throughout the Instructional Technology Council survey's history, it has identified, categorized, and ranked the greatest challenges for administrators of distance education programs but has not undertaken exploration of specific administrative nor proposed issue-specific solutions to those challenges. This leaves unresolved how community colleges' distance education administrators have addressed these challenges, and which efforts they identified as effective solutions for their institutions.

While much research has focused on individual frontline issues of online education, little study has been focused on identifying administrators' best or smart practices to resolve administrative issues. Even for the few administrative best practices identified, none included studies that identified the key components of the practice allowing for the practice to be described, extrapolated and applied to another institution experiencing a similar issue.

This lack of study supports the need to explore and identify smart practices and then to go further to identify and describe key components of the smart practice that allow the smart practice to be extrapolated and adapted for use at other institutions experiencing the same or similar challenge. For the purpose of this study, "extrapolation" is defined as using the account as a source of ideas that would be narrowed down by the investigator, and used for solving the problem (Barzelay, 2007).

Conceptual Framework

The framework for this study is drawn from Bardach's (1994) concept of smart practices. Smart practice is an iterative concept that emerged from efforts to identify best practices. Best practice research was originally conceived in the domain of management (Veselý, 2011) in which entities strived to be more efficient, productive or responsible in their businesses.

Best practice research utilizes multiple named-practice forms to describe practices appearing to somehow be "better" than others are. Common descriptive terms used are "good," "effective," and "best" practice. All emphasize function and orientation on process, transformation and innovation (Touminen as cited in Veselý, 2011). However, many papers and research reports using the phrase "best practice" in the title are descriptions, not research (Veselý, 2011). Best practices can be random, subjective (Veselý, 2011), laborious to review and impossible to verify (Peha, n.d.).

A search of ERIC databases using the "best practices" descriptor, defined therein as "techniques or methodologies which are recognized as producing the best performance" (ERIC, n.d.) returned 3,770 documents so categorized. If "best" means

that it is truly better than many or most other practices, this implies that it is a relatively rare thing (Bardach, 1994). This type of inconsistency caused Bardach to reconsider terminology used to categorize levels of "practice."

Bardach (1994) put forward the goal of widening the range of solutions to problems initially under the name of best practice. In using the term best practice, conceptually, he found that to completely evaluate all opportunities at all locations where the idea existed was virtually impossible. Acknowledging this incongruity, he altered his phraseology to smart practice. The resulting wider range of application comes about due to the philosophical interpretation of smart practice. Specifically, in smart practice, there can be no single practice that is equally effective when applied to all similar problems and in similar settings.

Both best practice and smart practice are founded on the same concept, that an interesting or smart idea exists in practice and deserves further attention. Bardach (1994) stated smart practice can be anything that aims to exploit, or take advantage of, some latent opportunity for creating "value on the cheap" (Bardach, n.d., p. 6). Ongaro (2009, p. 6) defined it as a "practice conceived as a means to exploit opportunities."

Using smart practice as the conceptual basis does not require identification of all situational variants as best practice would. It is possible to extrapolate mechanism, contingent features, implementing features, optional features, supportive features, secondary benefits and costs, and vulnerabilities and failure modes (Bardach, 2004) of a given site.

It is through extrapolation that smart practices can be identified in their

uniqueness and potential for use at other sites. It is also this essence of uniqueness that

represents a common principle of the community college, and therefore, applicable as a

basis for examining smart practices of administrators responsible for online programs at

those institutions. As institutions, community colleges are designed to meet local

interests and needs (Pedersen, 2000). This uniqueness can give rise to smart practices

that may have applicability through adaptation to other community college administrators

facing similar challenges.

Research Questions

The central question of this study was "What smart practices exist to address the

challenges facing a distance education administrator in developing, implementing, and/or

sustaining effective online programs leading to associate degrees or sub-associate

credentials?" Two question subsets were utilized to assist in answering the central

question. The first question subset served a second function, to help in identification of

the study institution. The second question subset provided a framework to capture

elements of Bardach's (2004) extrapolation process.

Responses for the first subset of questions were gathered along with general

institutional information through an online questionnaire (Appendix A). A follow-up

email was sent on June 11, 2016 to the selected study institution requesting clarification

of specific responses to Section 2 of the online questionnaire (Appendix A).

- Of the Instructional Technology Council categories, which are the top three that are sufficiently significant to consider them part of the primary group of administrative challenges?

- Within the top three categories identified what is the single current, highest priority administrative challenge?

- What strategies have you attempted to address this specific challenge?

- Of these strategies, is there one that can be identified as a "smart practice" for your institution?

Questionnaire responses were augmented by additional clarifying information captured through the June 11, 2016 email. Combined, these responses were used to categorize the most significant administrative challenges, identify attempted strategies, and to serve as the starting point for the process of exploring the study institution for smart practices.

The second question subset was used as the basis of the formal interview of the institutional representative.

- How can the administrative challenge be generally described?

- How can the practice generally be described?

- Where does the practice draw its strength, i.e., its effectiveness or capacity to reduce cost, increase performance, etc.?

- Are there generic vulnerabilities of the practice?
  (Bardach, 1994)

Utilizing responses to both question subsets resulted in capturing information in sufficient detail to answer the four components necessary for Bardach's (2004) extrapolation process allowing a full account of smart practices identified.

Methodology

This study used the instrumental case study method (Mills, Durepos, & Wiebe, Eds. 2010). "When the purpose of case study is to go beyond the case, we call it 'instrumental' case study" (Stake, 2006, p. 26). Instrumental case study offers the opportunity to learn more about smart practices used by administrators of community college online programs. Using smart practice as a conceptual framework provided an established process to guide design of the formal study.

This study involved two primary steps. First, a questionnaire (Appendix A) was used to identify an institution and distance education administrator to serve as the case. Second, through an interview with the distance education administrator, significant administrative challenges and responses being faced in fully online programs and degrees were explored for the four components of extrapolation for smart practice.

This study has provided considerable exploration of identified smart practices to administrative challenges that will add to the literature. Specific smart practices to administrative challenges have been identified. This study has further identified and documented the extrapolated components of those smart practices.

Definition of Terms

Associate Degree—Formal award recognizing students that have acquired either a comprehensive education preparing the student for transfer to a four-year institution, or,

having acquired a comprehensive education for entry to a specific occupation. Commonly referred to as Associate of Arts, Associate of Science, Associate of General Studies, or Associate of Applied Science.

Best Practice—Processes or procedures that are considered to be most effective.

Fully online programs and degrees—A program of study resulting in an associate's or sub-associate credential wherein the student is not required to come to any physical college campus or specified geographic location for any component of a class or to access a campus service, e.g. financial aid, academic advising, book purchase. Note: Synchronous or asynchronous modes of delivery do not prevent an online degree/program from being considered a fully online program and/or degree.

Parse/Parsing—A software-based process allowing electronic text to display in readable form on electronic devices.

Render/Rendering—A software-based process allowing electronic images to display properly on electronic devices.

Smart Practice—A practice that can be extrapolated from source sites to be adapted to target sites that takes advantage of some latent potential in nature and to achieve a goal at relatively low cost.

Sub Associate Degree—Formal recognition for completing a specified series or quantity of courses resulting in an award commonly referred to as a Certificate or Diploma.

Assumptions

This researcher feels there are basic assumptions that need to be made in a study such as this. First is the idea that models developed in other areas of research may have produce beneficial results when applied to other fields of research. Such is the case with Bardach's (2004) model to identify smart practices. While developed for the realm of public administration similar external and internal drivers i.e. goals exist in both e.g. budget efficiency.

Specific to the topical area of this study, online degree programs, given the ease that a student can enroll in an online course while no longer being tethered to the student's geographic region, the researcher believes, will result in continued expansion of enrollment in online courses and degree programs. Further, that institutions seeking to enhance enrollment and provide ease of access to programs for students will continue to expand and adapt the programs they offer. These types of expansion will require the institution to increase efficiencies by identifying methods to enhance values that can be gained through utilization of smart practices.

Administrative, faculty and student expectations of online programs will continue to change. Therefore, the core idea of a smart practice may have applicability in future iterations for continued online program improvement.

Delimitations

As noted by Bryant (2004) and Simons, (2008) delimitations are intentionally set by the researcher to limit the scope and define the boundaries of the study. This study was limited to an in-depth study of a single public, two-year community college located

in the IPEDS Plains region. To be included in the study the institution must offer fully online associates and sub-associates credentials. In addition, the institution must not require a student to come to campus or other physical location for any component of a course or college service e.g. advising, financial aid. The exploratory nature of this single institution, instrumental case study may prevent generalization of results to other community colleges or community college populations.

Limitations

This study will rely on self-reported questionnaire and interview responses. The bulk of the data for this study was captured via interview with a community college administrator in charge of the institutions' online and distance programs. It is expected the respondent will provide honest and accurate information in response to the interview questions. Participant responses are relative to a specific time and institution or situation and may not be applicable at a future time or institution.

Significance of the Study

There is sparse research on smart practices of community college online education administrators in response to their most pressing administrative challenges. This study has added to the literature by exploring self-reported administrative smart practices used by administrators of community college online degree programs.

The results are significant for individuals who administer online education programs that may consider smart practices as possible solutions to challenges in their own online programs and to meet the needs of constituents. Individuals who are interested in potential impacts of successful delivery of associates degrees and sub-

associates credentials may benefit knowing the Bardach (2004) model of identification of smart practices has application to higher education. Knowledge of the means of increasing efficiency without increasing costs of college operations may be of benefit to Community college leaders, i.e., board, executive and administrative members, and state legislatures that make decisions, provide direction and allocate resources for institutions under their oversight.

Persons interested in the influence of organizational culture on leadership and its impact on smart practice may find benefit to theory coming out of this study. Researchers interested in the concept of smart practice when applied to institutions where "value" is identified as a result of the organizational culture as opposed to law-based interpretation of value as found in public administration may find this research of benefit.

Chapter 2

Literature Review

Offering fully online programs and degrees to students at distance from campus is a complex undertaking. Doing so creates a unique set of administrative challenges to solve as compared to the equivalent programs offered on-campus. Administrative challenges resulting from separation of student from campus require administrators to develop smart practices to resolve the challenges encountered. Smart practices can result out of personal experiences and can also be searched out and adapted.

In current research, "best practice" is the more common phrase and has focused on resolution of individual, direct and indirect administrative challenges of online courses, programs and degrees, and, students and faculty. Current best practices attempt to resolve challenges directly encountered by students taking online courses and by faculty teaching those courses (Anderson & Simpson, 2007; Laves, 2010; Little, 2010; Liu, Gomez, Khan, & Yen, 2010; Lupton, 2010; Orellana, 2006; Shepperd, 2006; Veale, 2010).

Limited research exists that identifies smart practices resolving administrative challenges encountered in the delivery of fully online degrees and programs. Course and program best practices may originate from smart practices of administrators; however, no research could be found directly linking the two. For these reasons, this literature review relied heavily upon review of best practice research for online programs and degrees to locate incidental inclusion of smart practices of administrators used to resolve administrative challenges of fully online programs and degrees. The wide range of

course and program attributes that are included in this review lend credence to the

breadth of administrative challenges that may exist.

Current research can be grouped, but boundaries of those groups are not exact.

Additionally, there are research topics that run across multiple groups (e.g., quality). The

review of literature will be thematically grouped. The first section, existing research, is

divided into three subsections: (a) evaluation of quality, (b) administrative challenges of

online degree programs, and (c) smart practice. The second section provides a summary

of the literature reviewed.

Remaining consistent with instrumental case study design, the literature review

will be used to justify the importance of the research problem. To assure the views of the

participants emerge from this research without constraint, there is not extensive initial

discussion of the current literature. Elaboration will occur at the conclusion of the

research project to compare and contrast this study's findings relative to earlier research

(Creswell, 2008).

Existing Research

Little specifically-identified research on administrative best practices for online

education in community colleges is found in the literature. Table 1 shows the results

relative to search terms of ERIC and University of Nebraska – Lincoln (UNL) Digital

Commons dissertations.

Paring down the final results by eliminating those documents that were not

relevant to this study left only three documents:

Table 1

Literature Search Results

Search Terms	ERIC	UNL
Administra* + "best practices"	7425	297
Administra* + "best practices" +"community college"	85	14
Administra* + "best practices" + "distance education"	243	16
Administra* + "best practices" +"distance education" +"community college"	7	2
Administra* + "best practices" + "online education"	54	4
Administra* + "best practices" +"online education" +"community college"	5	1

(* = wildcard)

- A Quality Scorecard for the Administration of Online Education Programs: A Delphi Study (Shelton, 2010)

- Training for Faculty Who Teach Online (Batts, Pagliari, Mallett, & McFadden, 2010)

- Creating an Effective Online Environment (Jaggars, Edgecombe, & Stacey, 2013)

With limited results from the initial keyword search, a second literature search was performed using subject-phrase criteria specifically on the ERIC First Search database available through the University of Nebraska-Lincoln Library system. This search resulted in seven additional documents that reported on best practices that included sections on administrative best practice.

Research specifically on administrative smart practices has been commonly focused on strategies or policies, or as specific action oriented goals. The link between strategy/policy and end goal, that component of administratively "how" these were accomplished, are missing. Selected examples of the missing "how" are presented relative to the particular paper.

Elements of quality. Abel's (2005) multiple case study identified "success factors" for achieving success in internet-supported learning. Institutions were purposefully identified and based on the institution's self-perception of being successful in online education, possibly creating bias and therefore a weakness of the study. The cases included community colleges, bachelors, masters and doctoral research institutions in both public and private sectors.

The study identified eight findings believed to influence success of their respective online programs. Titled as summary findings included were: (a) having strong motivation to achieve success; (b) administrative commitment; (c) a variety of measures by which the institutions considered themselves successful – student outcomes, student satisfaction, growth in enrollment and faculty satisfaction; (d) support for students and faculty; (e) successful institutions focused on having full programs online; (f) successful institutions have solved technical issues and focus on improving the overall educational product; (g) the greatest challenges included development and delivery of effective online materials and development of the online environment; (h) having found solutions to strategic, structural and process issues.

The latter section of the study included a categorical listing of best practices. One practice of note, was executive leadership and support that identified three best practices. However, not included were descriptions of how these best practices may have also been adopted as smart practices.

Establishment of basic quality. The Sloan Consortium, now known as the Online Learning Consortium (OLC), Synthesis of Sloan-C Effective Practices (Moore, 2009) promoted the sharing of effective practices in online education. Although no longer a synthesized document, submission of effective practices continued to be categorized according to alignment with one of the five OLC quality framework "pillars."

The OLC created its Quality Framework metric (Sloan-C Quality Framework) that lists The 5 Pillars: Learning Effectiveness, Scale, Access, Faculty Satisfaction and Student Satisfaction. The 5 Pillars in totality created the framework by which an institution could demonstrate its quality through the five interlinked areas.

- Learning Effectiveness concentrates on documenting practices that provide students with a high quality education.
- Scale focuses on costs and resources, potentially reflecting administrative smart practices, relative to creating educational value to learners and cost-effective practices for the institution.
- Access identifies practices that support the student from the beginning to the end of their college career.
- Faculty Satisfaction includes identifying and documenting effective practices that assist the faculty teaching online.

- Student Satisfaction includes effective practices in areas of the overall online educational experiences.

The document, and its webpage successor, is a collection of effective practices organized under one of the five quality pillars. Each contains a range of practices that are action-oriented, results-focused, and which may be best utilized in the development of the entire online enterprise. The administrative challenge of how the practices comprising each pillar were arrived at and implemented are not addressed.

Evaluating quality. It can also be categorized by its uses: continuous quality improvement, evaluation and accreditation. Practices of quality have been evaluated extensively for use in online education courses and programs, and by online education administrators. The goal of high quality is a component of continuous improvement, course and program evaluation, and institutional accreditation.

The Quality Scorecard was developed by Shelton (2010) using the Delphi process. This study utilized "a panel of experts in online education in higher education administration to identify standards of quality necessary to develop a quality scorecard for online education programs in higher education" (Shelton 2010, p. 49). The panel members' "expert" status was based on their recognition as expert by Sloan-C. Institutional types represented on the panel included public and private large, medium and small sized four-year institutions. Of the 43 panel members only one was from a community college. With very heavy representation of the four-year institutions, the results may have been biased in favor of preferred online program attributes of non-community college institutions.

The purpose of the study was to determine whether the experts thought that the Institute for Higher Education Policy (IHEP) results were still relevant ten years after original study. The resulting scorecard allowed an administrator to create a comprehensive view of their online program using a multi-topic review of class and program components that have been ranked individually and in varying categorized composites. The instrument was divided into sections: (a) instructional and institutional supports, (b) class development and instructional design, (c) class structure, (d) teaching and learning, (e) social and student engagement, (f) faculty and student support, and (g) evaluation and assessment.

Each section provided criteria on which the program was scored. Numeric scores for these criteria were summed and became the measure of quality for that section. Scoring reflected the level of accomplishment of criteria, potentially reflecting the end result of administrative smart practice but did not examine the smart-practice directly.

Shelton's (2010) Quality Scorecard was one example of ways that holistic quality course program evaluation and assessment have been the focus of major research. Many of the postsecondary accrediting commissions and the OLC provided examples of this approach. As with individual-topic studies cited previously, holistic evaluation does not include investigation of best or smart practice that resolve administrative issues, which supports the need for further study.

Administrative challenges of online programs and degrees. There are unique administrative challenges to developing, implementing and sustaining online degree programs. These challenges have arisen due to the lack of research about administrative

challenges of online degree programs as well as how online education fits into the larger academic scheme of community college (Patterson-Lorenzetti, 2011).

Patterson-Lorenzetti (2011) summarized a 2010 conference panel presentation by Fred Lokken, then chairman of the Instructional Technology Council, and colleagues. The summary was based on the panel member's personal experiences of unique challenges faced by administrators of online programs. Although it would have been a significant aid to understanding and application to know the types of institutions represented by panel members, that information was not included in the article. The panel's comments fell into five topical areas:

- Learning curve and lack of historical place. Often the administrator placed in charge of online programming came from an academic area and lacked specific experience in challenges that would be faced in the role of running online education. Neither college chief executives nor other administrators had specific experience, when attempting to find a place for the community colleges' online education programs.

- Campus politics and positional lack of power. Online education, being a new endeavor does not have a long history upon which to stake claims of success. It does not have a formal organizational position within the college and commonly lacks an advocate with political influence.

- Loss of autonomy. Dependent on the organizational model of online education utilized, centralized vs. decentralized, an online program may

operate under the influence of academic and other college departments thereby having to operate reactively rather than proactively.

- Staffing concerns. Changes in administrative staff that may have advocated for the online program can be lost, resulting in negative impact to the online program. Instructional staffing can also create issues. Just as some instructors are more adept to teaching online there are also those less-so.

- Student concerns. Student concerns and expectations need to be addressed given the ease with which the student can quickly and easily move online to another institution.

It is out of this uniqueness that exploration of administrative smart practices for online education programs needs to be undertaken. Lokken as cited in Patterson-Lorenzetti (2011), stated other areas of academe have career tracks while distance education administrators face a steep learning curve in creating successful online programs and degrees. Without research into these smart practices, online programs may develop more slowly.

Strategic planning. Adams' (2003) study was a multiple case study of three Midwestern community colleges. Participants in the study represented distance education administrators, directors and faculty. Adams was investigating participant's mental models, i.e., ways of thinking about key issues and relationships of distance education relative to the development, or lack thereof, of strategic plans for their respective distance education programs.

Adams (2003) discovered: (a) that the online education leaders used similar ways of thinking about key environmental issues; (b) the colleges did not develop formal strategic plans, instead their online education plans emerged from their experiences and initiatives of faculty and administrators; (c) the colleges did tend to think more alike regarding money and technology factors; but (d) less alike when thinking about faculty issues, leadership and college commitment, and, competition, marketing image and quality.

In Adams' (2003) summary, he concluded these community colleges did not develop formal strategic plans, but rather that their distance education plans were experientially based and influenced by faculty and administrative initiatives. In spite of having no formal strategic plans, it was found that the community colleges addressed many of the same issues that were mentioned by scholars, journalists, and other online education practitioners.

Adams (2003) stated that: (a) continued growth of postsecondary online education will pose major challenges for institutions and policy makers; (b) there are no simple formulas or clear paths; and (c) effective online education strategies should be built on accumulated knowledge. However, utilizing smart, or even best, practices for administrative challenges was not mentioned in spite of the fact he discovered significant similarity in how the three colleges focused on many of the same issues.

Not until online courses began to exist did the financial impact for online education gain sufficient attention to drive inclusion of formal development of online education into strategic planning. The resulting increased visibility raised the awareness

that online education cannot utilize the administrative and support systems built for the traditional on-campus student. These campus-oriented administrative support structures needed to be analyzed and potentially modified to successfully implement online education programs (Meyer & Barefield, 2010).

Through a review of literature Levy (2003) identified six distinct areas that were part of the total online education system. The six areas identified were: (a) vision and plans, (b) curriculum, (c) staff training and support, (d) student services, (e) student training and support, and (f) copyright and intellectual property.

Levy's (2003) study was critical of institutions' lack of inclusion of distance education in the college's strategic plan; although by comparison, information technology and e-commerce had been included, distance education was not. Levy's implied perspective was distance education was at least equally important, if not more so, for the institution.

According to Levy (2003) "A lack of planning will only cause problem, both budgetary and otherwise, to occur . . . understanding how to plan a successful program will be essential to their success" (p. 11). Despite findings showing the impact of lack of planning for distance education, no recommendation of best or smart practices of other institutions were included.

Second rate degree. The literature suggests that employers perceive online degrees as being of lesser value and quality than traditionally earned degrees. When online programs and degrees are considered second-rate it becomes more difficult to identify them as a benefit to the growing number of online students. These internal and

external perceptions have contributed to administrative challenges for online degree programs.

Based on a survey of higher education administrators and state politicians, Sherritt (1996) described the decision makers' view of distance education as a second rate and deficient form of education as problematic. The attitude of the college decision makers, i.e., leadership, became the prevailing attitude throughout the institution. As a result, academic administrators of program areas put up with distance education since it helped to increase student numbers with minimal addition of operational resources but were generally not supportive of distance education.

Beyond creating and sustaining internal perceptions of lesser quality, the perceptions that the off campus programs and students were inferior seeped into "messages" that ultimately students became aware of. Combining the prevalent ideology of the time and the resistance of academic administrators to adapt instruction to fit distance delivery resulted in an attempt to mold the distance programs and students to fit within existing campus structure (Sherritt, 1996).

Although many of these perceptions have evaporated some stubbornly persist. A study by Adams, DeFleur and Heald (2007) found that healthcare administrators overwhelmingly preferred the applicant in a hypothetical scenario that was described as holding the traditional, versus the online-earned degree. Skepticism was not limited to a single industry or job classification. In a review of studies sourced through multiple scholarly databases, Linardopoulos (2012) found there is a much greater likelihood a

candidate holding an online degree would be viewed less favorably for employment than the candidate with a face-to-face degree.

Effectiveness and efficiency. Inman, Kerwin, & Mayes (1999) studied the attitudes of students and instructors toward distance learning. In this study of 11 Kentucky community college instructors, and composite 334 students, researchers found that the instructors' perception of quality of the online class was lower than that of their students. Students' attitudes about quality and effectiveness of a course, i.e., amount of material learned, as well as effectiveness of the instructor in an online course were highly correlated to three variables: (a) instructor-generated materials, (b) course materials, and (c) amount of work students had to do for the class. While the administrative challenge identified by the study was provision of sufficient time, training, and tools to the online instructor for development of the course, sufficient detail about the setting, students and instructor were provided so that some components needed for the extrapolation of a candidate smart practice were identifiable.

From a slightly different perspective, but still tied to work performed by the student, was their preparedness to perform as an online student. Not all students are best taught via distance (Valentine, 2002). This has been an administrative challenge in two ways. First, and becoming more common, is development of an instrument to accurately evaluate the student's readiness for the challenges of an online program. Time and effort are required to develop, implement, and assess the predictability of the instrument. Second, is helping prepare the online instructor to assist, guide and keep the students actively engaged in the class through chat rooms, discussion boards, and regular

interaction with classmates (El-Mansour, 2011). To increase the likelihood of engagement, students will persist if they feel they are part of a community (Valentine, 2002). To create the feeling of community, time is required by the instructor for training on applicable techniques, and then additional time to accommodate or facilitate student-student and student-instructor interactions.

An examination of the effective practices documented by Moore (2011) for occurrences of administrative effective practices revealed only one by title and is found under "scale." This practice described use of technology in provision of cost effective services for faculty, students and administrators. Moores' (2011) compilation of practices from multiple universities' approaches to using technology to reduce cost, time, and duplication of services, to support faculty in development of curriculum, and provide support for secure testing.

Moore (2011) did include brief descriptions of administratively related effective practices. These practices included examples of a budgeting system for costing-out the Pennsylvania State World Campus, a model by Eastern Oregon University describing an effective way to involve faculty in distance education, and a third, describing an open platform, i.e., open-source program used for administration of courses, students and faculty. While these practices in their native institutional settings may yield smart practices, it would require in-depth exploration to determine if any do exist.

While these are applications of effective practices and potentially resulted from administrative smart practices, they fell short of describing the steps needed for extrapolation of a smart practice for organization, budgeting, and implementation. In

addition, the greatest majority of the effective practices included in Moore's (2011) document were oriented more toward four rather than two-year postsecondary institutions.

Student retention. Carr (2000) explored perceptions of instructors and staff affiliated with online education programs regarding student retention. Perceptions as reported by Carr (2000) varied widely and included: retention of online students being similar to retention in face-to-face courses, demands of life on adults trying to balance too many priorities, job changes, lack of regular interaction with the instructor, lack of timely response from the instructor, retention of online students that is higher than that of the face-to-face class, to students unprepared or ill-matched to deal with the unique demands of taking courses at a distance. These concerns persisted despite significant enhancement to the underlying technology used for delivery of courses.

However, a deeper analysis of the article revealed administrative challenges that continue to exist today. Instructor-reported statements recounted their immediate challenge was keeping the student engaged, feeling connected, and tracking their online course progress. This was an attempt to better know the student online and to serve as a method of identifying struggling, potential non-completing students.

Some instructors invested more time in creating software-mediated synchronous sessions with students, while others utilized software for tracking students' time online while actively engaged in the course materials and activities (Carr, 2000). In studying the instructors' practices, a sense of the underlying administrative challenge can be identified. The weakness in Carr's (2000) analysis for the purpose of my study was that

no study of administrators' challenges were identified nor were their smart practices. No description of the practice that had potential for adaptation for other institutions was included.

Student services, training and support. Early research into online education focused on the effectiveness of computer software and the internet. Utilizing technology can change the way in which student support could be delivered with potential benefit for both the distance and on-campus student (Moore & Kearsley, 1996). Considerable emphasis was placed on learning management software, internet bandwidth, adaptive technology and mobile devices. By comparison, while student services have gradually gained the interest of researchers, student services as a discipline remains less studied than the aforementioned items and continues to receive less attention than instruction. This lack of research regarding the means to effectively provide student services has added to the challenges for the online education administrator (Care & Scanlan, 2001; Levy, 2003).

Impact of attitude. Several studies have drawn connections regarding the trickle-down impact of the administrator's attitude on the quality of online programs. These trickle-down attitudes have created numerous complications. Valentine (2002) stated that many times the administrator must motivate instructors, and provide them with development time for their courses. Often administrators believe technology alone will improve the quality of the class. Just as Sherritt (1996) found that many higher education administrators and state politicians viewed online education as second rate, current surveys find some concerns still persist. In a 2014 Gallup survey administrators and

faculty felt meaningful student-instructor interaction to be absent in most online courses.

In addition, faculty members regularly teaching online continue to feel online course

results are inferior to classroom based courses (Straumsheim, 2014).

Leadership. Creation of fully online programs and degrees is no different than

any other major multi-faceted project a community college administrator undertakes.

Well informed leadership is needed to provide a broad perspective from which to develop

distance learning policy. A broad perspective reduces risk that could result if policy were

developed in isolation at the lower levels of organization within the institution (Barnhart,

2002).

Online learning leaders also recognize the need for shared leadership.

Acknowledging the various roles of faculty, curriculum, and technology designers, the

online learning leader creates the needed combination of top-down and grass-roots up

leadership (Abel, 2005). Just as the early focus on individual courses has now widened

to include fully online programs and degrees, online education administrators have begun

to shift their focus from the micro issues of technology and impact on learners to a macro

view of the institution, technology and adaptation of campus-based support services to

the virtual domain of online education (Beaudoin, 2003). This inclusive approach

demonstrates an institution's support and commitment to development of online

education (Gopalakrishnan, 2011).

Gopalakrishnan (2011) found strong evidence that executive leadership must

accompany major change. As a change agent the senior level administrator brings

visibility that lends support to establishment of online education and also underscores its

strategic importance. Pascale and Sternin's (2005) research stated that the role of change agent included four primary tasks: (a) management of attention, (b) allocation of scarce resources, (c) reinforcement to sustain momentum, and (d) application of mechanisms to sustain and ensure progress toward the goal (Pascale & Sternin, 2005, "The Leader's New Role", para. 2).

Institutions with successful online education programs are those which have received strong and enduring commitment from administrators. In addition, those administrators have been actively involved in leading the online education efforts (Abel, 2005). Yet little empirical research exists to guide institutions as they evaluate their administrator's smart practices and administrative structure for online programs (Hoey, McCracken, Gehrett, & Snoeyink, 2014).

As part of a development change model for implementing successful online programs at universities, Gopalakrishnan (2011) studied leadership strategies and smart practices related to motivation of faculty. The study showed there were a variety of administrative strategies used in dealing with opposition from faculty to gain acceptance for moving courses and programs to online delivery.

However, in application of leadership practice, often overlooked is the simple step of leading faculty and staff through a comprehensive, applied training program (Moon, Michelich, & McKinnon, 2005). From an institution-wide perspective this oversight of leaders could encompass faculty teaching in all programs including online. As successful as these programs have been, only the results of the administrator's smart practices have

been reported. The smart practices upon which these results are based have not been researched.

   Accreditation. A variant perspective from which to view smart practices is from that of accreditation. Practices of managing online education were surveyed by the Western Interstate Commission for Higher Education (WICHE) Cooperative for Educational Technologies (WCET) (Poulin, n.d.). WCET's membership includes two and four-year institutions, public and private institutions and land-grant universities. The results of the survey indicated that more than 85% of the institutions have spent considerable effort and time implementing "best practices" and adopting standards.

   The survey showed how successful institutions demonstrated leadership and provided services that enhance faculty and student success. Although the survey focused on practices that promoted quality in online education, smart practices of the administrators were not investigated.

   Legon (2006) compared the best practice principles endorsed by the Council for Higher Education Accreditation (CHEA) and those from the Quality Matters® Rubric. These instruments are similar in that both utilize a peer review process and are intended to result in continuous improvement. However, they differ to the extent that CHEA provides an evaluation of an institution and its programs, whereas the Quality Matters® Rubric focuses on individual courses.

   Similar to CHEA the Southern Regional Education Board (SREB) (Electronic Campus of SREB, 2004) as well as the international accreditation agencies of United Nations Education, Scientific, and Cultural Organization (UNESCO/OECD), European

Association for Quality Assurance in Higher Education (ENQA) and International

Network for Quality Assurance Agencies in Higher Education (INQAAHE), have created

guidelines by which institutional online practices are evaluated (Scull, Kendrick, Shearer,

& Offerman, 2011). These organizations evaluate institutions' responses to questions as

substance of proof of best practice, but do not evaluate the best practices directly.

Administration. Lack of administrative smart practice research is further borne

out in a relatively recent review of literature by Simonson, Schlosser, and Orellana

(2011). Their review of best practices in distance education reported the need for a

review of distance education through the lens of correct instructional design. Simonson,

Schlosser, & Orellana (2011) recognized that online education requires a systems

approach and the need to remain cognizant of the rules and general principles that offer

guidance in the broad instructional area of distance education.

Although Simonson, Schlosser, & Orellana (2011) article was a review, and

technically not a meta-analysis, it offered no further proof of any general body of

research into smart practices of online education administrators charged with

development and operation of fully online programs and degrees.

From my review of the literature, administrative smart practices are rarely

described directly in the literature. Administratively authorized changes in policy or

practice have assisted instructors by expanding and updating the technology, however,

the administrative smart practices leading to the decision, and associated functional

processes, were not found.

Most existing administrative research addresses frontline best practices at the course level. Creation of fully online programs and degrees has been no different than any other major project a community college undertakes. Yet often overlooked, is the step of providing faculty and staff a comprehensive, applied training program (Moon, Michelich, & McKinnon, 2005).

Long standing distance learning programs documented decades after their inception also fail to identify administrative smart practices. Too much time has passed to be able to accurately reconstruct the smart practice. Sachs (2004) reviewed the creation of Northern Virginia Community College's distance learning program. Details of the plans and goals, organization and administration and decision making were provided. In the section on organization and administration, noted was the importance of formal rather than ad hoc status for the program as well as administrative independence. Also noted was the need for funding to be part of the general budget, the need for there to be formal and informal ties to academic and governance committees to ensure communication and provide a feeling of ownership and connection (Sachs, 2004). However, as mentioned previously, the smart practices were not researched and have been lost to time.

The international community has recognized concerns that include administration and administrative best practices focused on quality and reduction of faculty-deterring factors such as participation in planning, developing, and teaching courses online. To respond appropriately to these factors, creation of smart practice principles should deal

with faculty and course issues in a way that would move the institution forward in both online and on-site classes (Baghdadi, 2011).

Smart practice.

Historical grounding. Smart practice has seen considerable use in business, military, and government, but no more than in public administration. Smart practice was at the heart of Barzelay's (2007) administrative reform through redesign of overhead and control agencies in Minnesota. Barzelay's (2007) approach was to have the agencies face incentives to perform better so performance would be "counted" as much as cost and accountability. Documented use of smart practice in higher education has been predominantly as an instructional method for teaching critical thinking as used by the Kennedy School of Government at Harvard and subsequently at the Ford School at the University of Michigan (Bardach, 2004).

Smart practices are grounded in successful practice. Relative to this study is successful educational practice as delineated by Chickering and Gamson's (1987) study which was based on the needs of the group. They posited that "good learning," their equivalent to smart practice, in undergraduate education is built on the need to: (a) encourage contact between students and faculty, (b) develop reciprocity and cooperation among students, (c) use active learning techniques, (d) give prompt feedback, (e) emphasize time on task, (f) communicate high expectations, and (g) respect diverse talents and ways of learning. These seven smart practices focused on undergraduate education as delivered in a traditional classroom setting and are equally applicable to fully online programs and degrees.

Conceptual basis. Best and smart practice are founded on the same concept, that an interesting, i.e., smart idea, exists in practice and deserves further attention. Bardach (n.d.) stated smart practice can be anything that "aims to exploit, or take advantage of, some latent opportunity for creating value on the cheap" (Bardach, n.d., p. 6).

The goal of best practice research, namely widening the range of solutions to problems, was put forward by Eugene Bardach (Bardach, 1994). Identification of "a good solution" (Lynn as cited in Bardach, 1994, p. 263) depends a lot on the context in which the solution is found. However, to identify all the variables in a setting would be extremely difficult if not impossible due to complex social behavior of the participants. This complexity lead Bardach to later modify best practice to smart practice due to the extensive research that would be required to take all opportunities into consideration.

Smart practice takes a case-based qualitative approach to research (Veselý, 2011). It is a process "more like searching for interesting ideas than about successful [ideas] that might be adapted…from the experiences of others" (Bardach, 2004, p. 218). There is potential for considerable variation in the "source" site of a smart practice. Due to this potential variation, Bardach (2004) felt there were four things you could "do with somebody else's good practice: (a) replicate it, (b) adapt it, (c) experiment with it, or (d) get further ideas that are inspired by it" (p. 216). However, before any of this can occur the smart practice has to be extrapolated.

Bardach's (1994) approach to the problem was to "decompose" (Bardach, 1994, p. 263) the solution to a problem by breaking it down into two subcomponents by answering: (a) How does the system in which the solution is found "work"; (b) given it

works in such a way, then how can the solution be made to work better or to prevent the solution itself from breaking down.

Bardach (2004) added structure to his original two questions, above, to allow more detail to be captured about the solution. Bardach called this the extrapolation problem (Bardach, 2004). The basic components, i.e., mechanisms of the extrapolation problem are: (a) cost effectiveness, (b) contingent features, (c) implementing features, (d) optional features, (e) supportive features, (f) secondary benefits and costs, and (g) vulnerabilities and failure modes.

Of these basic components Bardach (2004) felt being able to determine the overall effectiveness, and the basic mechanism of cost-effectiveness, that "much else will fall into place" (p. 213). Through this perspective, effectiveness can be synonymous with "what works," but that identifying the cost-effectiveness made the practice more subjective.

Bardach (2004) created the final, and current, iteration of the extrapolation problem. This most recent attempt to create the account of a smart practice is composed of four elements: (a) a description of the problem or opportunity to which the practice is addressed written in more or less analytical terms; (b) a generic description of the practice, with some attention to interesting or widespread variants; (c) an account of where the practice draws its "strength," i.e., its effectiveness or capacity to reduce costs with little or no performance loss – or both simultaneously, cost-effectiveness; and (d) a description of the generic vulnerabilities of the practice.

Functional basis. Current postsecondary research has focused on a range of practices pertaining to: (a) course and program delivery; (b) student and faculty support for individual online education courses; (c) fully online programs and degrees; (d) access for distance students to college services e.g. student services; (e) faculty; (f) policy; and (g) procedure support (Poulin, n.d.).

In addition to these general categories, more specific topical areas of research in online education revealed research on best or exemplary practice for individual attributes of courses and programs including: development of courses and programs (Amrein-Beardsley, Foulger, & Toth, 2007; Chapman, 2010; Howell, Williams, & Lindsay, 2010; Restauri, 2004); quality-satisfaction (Burks, 2010; Gallogly, 2006; Mariasingam & Hanna, 2010; Servier, 2010); technology (Annison, 2002); teacher-student/student-student interaction (Laves, 2010; Lupton, 2010; Orellana, 2006; Veale, 2010); ethics (Anderson & Simpson, 2007); student success (Little, 2010; Shepperd, 2006); and, student attributes e.g. motivation, self-efficacy, persistence, communication skills, and, computer literacy (Liu, Gomez, Khan, & Yen, 2010).

Procedures resulting from smart practices have been put forward within these areas. Most resulting practices concentrate on front-line application, i.e., online education individual course and program problem solving and tactical solutions. While unquestionably critical to fully online programs and degrees, they do not explore an administrator's smart practices pertaining to administrative challenges reported in the Instructional Technology Council's annual Distance Education Survey Results (Lokken & Mullen, 2014).

Products of administrative smart practice. As online education grew in popularity, evaluation of course and program quality took on a broader scope and higher importance. Examples of this broader form of evaluation include OLC's *Quality Scorecard for the Administration of Online Education Programs* based on Shelton (2010), and are earlier grounded in *A Synthesis of Sloan-C Effective Practices* (Moore, 2011); a compilation of effective practices.

Products of administrative smart practices supporting distance delivery of courses and programs include: marketing (Abel, 2005; Eisenbarth, 2003); administrative-administration support (Carstens, 2010; Caudill, 2010; Indiana Commission for Higher Education, 2010; Paolucci & Gambescia, 2013; Schauer, 2010); and, student services (Crowson, 2010; Washington, 2010). These researchers maintain focus on responses to needs at the level of course and program implementation for student and faculty support but not on smart practices utilized by administrators addressing administrative challenges of fully online programs and degrees.

Research into the administrator's smart practices is limited, yet, those smart practices utilized by online education administrators is of functional significance that helps a community college create, then maintain a successful, adaptive and ever-growing online education program.

Lack of existing administrator smart practice research. Distance learning programs, documented long after their inception, fail to identify administrative smart practices. Sachs (2004) detailed the creation of Northern Virginia Community College's distance learning program including plans and goals, organization and administration,

and decision making. Within the section on organization and administration, Sachs noted

the importance of formal rather than ad hoc status for the program as well as

administrative independence; the need for funding to be part of the general budget; the

need for there to be formal and informal ties to academic and governance committees to

ensure communication and provide a feeling of ownership and connection. However, due

to lack of timely documentation, details of the administrators' smart practices have been

lost.

National and international concerns regarding lack of research on smart practices

are similar. These concerns include administration and administrative smart practices

focused on quality and reduction of faculty-deterring factors such as participation in

planning, developing, and teaching of classes online (Baghdadi, 2011).

Identification and documentation of smart practices should include resolution to

administrative challenges in addition to student, faculty, and class challenges. Lacking

are exploration and documentation of administrative smart practices that move the

institution forward in their online programing.

Summary

Results of online course and program smart practices are prevalent in online

education. They can be found in the results of research seeking to improve various facets

of online education. Many are focused on finding solutions for issues related to the

overall growth of online education through development of action-oriented outcomes.

Research to identify smart practices is not restricted to just online degree

programs and courses, but has expanded to include replication of campus-based activities

for student and faculty support, registration, financial aid and other support services found on a physical campus.

The amount of research being done on distance education in general, and of online courses specifically, stands as testament to its overall complexity. However, little research has focused on smart practices of challenges faced by online degree program administrators. This lack of research continues to constrain administrators of online programs. Effectively, this may be the result of the smaller audience of online education administrators when compared to the considerably larger number of students, instructors and support staff involved in the frontlines of online programs.

Community college administrators responsible for online education programs continue to have to piece together an understanding of how individual institutional and organizational changes were administratively accomplished. This study identifies the smart practices distance education administrators have found effective in addressing the challenges facing administration of online programs. The findings of the study provide other distance education administrators with potential solutions that can be adapted to other institutions facing similar challenges.

Chapter 3

Methodology

The purpose of this instrumental case study was to identify how administrators of community college online programs solved administrative challenges they faced in developing, implementing, and sustaining online certificate, diploma, and degree programs, and to identify smart practices that resulted from those solutions.

The central question of this study is, "What smart practices exist to address the challenges facing a distance education administrator in developing, implementing, and/or sustaining effective online programs leading to associate degrees or sub-associate credentials?"

To assist in answering the central question, two subsets of questions were used. Responses to the first set of sub-questions were gathered through written questionnaire (Appendix A):

1. Of the Instructional Technology Council categories, which are the top three that are sufficiently significant to consider them part of the primary group of administrative challenges?

2. Within the top three categories identified what is the single current, highest priority administrative challenge?

3. What strategies have you attempted to address this specific challenge?

4. Of these strategies, is there one that can be identified as a "smart practice" for your institution?

Questionnaire responses were used to categorize the most significant administrative challenges, identify attempted strategies, and serve as the starting point to identify practices that may qualify as smart practices. Based on responses to the questionnaire a single representative institution was identified for the next step of the study. Data captured through an interview with the administrator in charge of online programs provided detail to explore these sub-questions that are based on Bardach's (2004) process for extrapolation:

1. How can the administrative challenge be generally described?

2. How can the practice generally be described?

3. Where does the practice draw its strength, i.e., its effectiveness or capacity to reduce cost, increase performance, etc.?

4. Are there generic vulnerabilities of the practice?

Instrumental Case Study Design

This study used the instrumental case study method (Mills, Durepos, & Wiebe, Eds. 2010; Stake, 2006). Case study is a holistic study commonly used in social sciences such as education (Yin, 2009). This method allowed for exploration of a contemporary phenomenon by examination of a case to answer why and how questions. Case study explores the richness of the phenomenon in the context of real life (Yin, 2009) and does so through an in depth exploration of a bounded system (Creswell, 2008).

Case studies rely on multiple sources of evidence in an exploration of the phenomenon to illuminate a set of decisions (Schramm, 1971). In this study the multiple sources of evidence were: (a) questionnaire (Appendix A); (b) interview/interview

transcript; (c) research field notes; (d) researcher memos; and (e) institutional documents. A pragmatic approach was used to answer four questions about each smart practice identified and allowed for extrapolation from the source institution.

Exploration of smart practices has a unique fit with a pragmatic approach to research. Specific key pragmatic components-of-fit include: (a) view of knowledge being both constructed and based on the world we experience and live in; (b) that reasoning be viewed not as a chain only as strong as the weakest link, but as fibers of a cable ever so small, provided they are sufficiently numerous and interconnected; (c) human inquiry viewed as being a search to discover what works and solves problems in the real world; (d) has a preference for action; (e) takes a value-oriented approach to research derived from cultural values; (f) allows for constant adaptation to new situations and environments (Johnson & Onwuegbuzie, 2004).

The study involved two steps. First, a questionnaire (Appendix A) was used to capture basic institutional information and to generally identify practice a community college administrator is incorporating to address challenges faced in providing fully online programs and degrees. Evaluation of the responses were then used to purposefully select a single institution, and therefore their distance education administrator, to be the case study.

This method of selection is in accordance with qualitative methods techniques, in which a research participant is selected using purposeful sampling (Creswell, 2008; Leech & Onwuegbuzie, 2009). Patton (1990) suggested that the power of purposeful

sampling methodology requires selection of an information-rich case for the purpose of learning a great deal about issues of central importance to the research.

The second step, final selection of the institution, led to the interview of the administrator in charge of online programming with the intent to identify, explore, and extrapolate smart practices applied to the top administrative challenges of fully online programs and degrees. Candidate smart practices so identified were examined for the four elements necessary for extrapolation as identified by Bardach (2004) and documented.

The four elements for extrapolation are: (a) a description of the problem or opportunity to which the practice is addressed written in more or less analytical terms; (b) a generic description of the practice, with some attention to interesting or widespread variants; (c) an account of where the practice draws its "strength," i.e., its effectiveness or capacity to reduce costs with little or no performance loss, or both simultaneously, as cost-effectiveness; and (d) a description of the generic vulnerabilities of the practice (Bardach, 2004).

The study will explore smart practice that will add to the literature, literature that to this point has identified solutions only for frontline issues as opposed to addressing how administrators' solutions result in smart practice that can be formally documented for extrapolation and implementation at other institutions.

Sources of Evidence

Five sources of evidence were used for the study: (a) questionnaire (Appendix A); (b) interview/interview transcript; (c) research field notes; (d) researcher memos; and (e) institutional documents. Each source of evidence is described below.

Questionnaire. The questionnaire (Appendix A) was comprised of two sections. Section 1 was a combination of data response questions, i.e., identifier and descriptor questions. Section 2 required the participant to rank items and provide short explanatory statements. Responses to these questions provided information that became the basis for selection of the purposefully identified participant for interview.

Interview/Interview transcript. Interviews can be one of the most important sources of information in case studies as it is a guided yet fluid conversation (Yin, 2009) between the participant and researcher. The researcher must follow the line of inquiry while keeping the conversation and questions unbiased.

The single session six- and one-half hour interview (see Appendix B for complete interview transcript) was conducted in person at the interviewee's office. The interview included selected open-ended questions with accompanying clarifying and elaborating probing questions to prompt full responses from the participant. Permission was requested to digitally audio record the interviews. Post-interview the recordings were transcribed by a professional transcription service to expedite processing to reduce time between interview, analysis, and correlation of text, documentation and researcher notes.

To clarify statements made during the interview and to capture information that had occurred after the interview but prior to finalizing the study, supplemental

information was gathered through follow-up emails. Table 2 provides information on follow-up email exchanges.

Table 2

Email Exchange Date and Topic

Email Date	Topic
January 27, 2017	Confirmation of existing institutional documents
January 31, 2017	Clarification of departmental collaboration/cooperation
February 10, 2017	Clarification of online versus on-campus enrollment
March 6 to 11, 2017	Member check
March 14, 2017	Clarification of institutional application withdrawal to offer Competency Based Education
April 2, 2017	Request for clarification of intra-institutional sources of data e.g. administrators, faculty

Researcher field notes. The researcher digitally and manually recorded notes and observations immediately after the interview. The field notes added depth to the interview transcription. Collecting and logging researcher notes immediately after the interview allowed the researcher to listen more closely to the participant, as well as to observe the participant's actions.

Researcher memos. The researcher used memos to capture significant thoughts about, as well as details of, the interview. Memos were recorded as the researcher reviewed the digitally recorded interview and while reading, and rereading, the interview transcripts.

Institutional documents. Documents are an important means to corroborate and augment evidence from other sources (Yin, 2009). Institutions commonly have documented college policy and procedure manuals for fully online programs and degrees. Documentation may also exist in the form of active projects within the institution. In this study those documents were be used to support and substantiate findings identified in the interview and field note transcripts.

Electronic files and institutional web pages provided access to six documents used in triangulation to provided information and additional insight that supported administrative smart practices. These documents were PCC's: (a) strategic plan; (b) academic plan; (c) technology plan; (d) president's plan of work; (e) future work plan; and (f) retention plan.

Intra-institutional information sources. The researcher emailed Dr. Online on April 2, 2017 requesting clarification of any intra-institutional sources e.g. employees of information were utilized in any of his responses to study questions and/or follow-up emails. No response was received.

The level of detail provided in Dr. Online's responses and examples is extensive. This researcher feels that in addition to Dr. Online's extensive experience in distance education there is a reasonable probability that information captured came from additional and not exclusively Dr. Online. However, this is speculation of this researcher.

Identification of Case

      Study population. The proposed questionnaire and subsequent interviews were restricted to IPEDS Plains Region public community colleges. The states included in the IPEDS Plains Region are based on the United States Department of Commerce – Bureau of Economic Analysis Plains region (U.S. Department of Commerce - Bureau of Economic Analysis, 2015). Both regions include the identical set of states. The Plains Region is comprised of: Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota and South Dakota. Similarities extend beyond economic attributes to include geographic, and demographic attributes. Of specific influence on public community colleges, and therefore on this study, these regions are also similar on the following points: (a) few metropolitan areas; (b) many smaller cities, towns and villages; (c) large rural expanses; and (d) dispersed populations outside the metropolitan areas. However, it is recognized that differences among the community colleges remain that are relative to: (a) Carnegie classification of institution; (b) mission/vision/goals; and (c) uniqueness that arises due to the community or region they serve.

      Participant selection. Administrators of online programming at community colleges in the IPEDS Plains Region classified according to Carnegie Basic Classification as: Assoc/Pub-R-S: Associate's - Public Rural-serving Small; Assoc/Pub-R-M: Associate's - Public Rural-serving Medium; Assoc/Pub-R-L: Associate's - Public Rural-serving Large; Assoc/Pub-S-SC: Associate's - Public Suburban-serving Single Campus; Assoc/Pub-S-MC: Associate's - Public Suburban-serving Multicampus; Assoc/Pub-U-SC: Associate's - Public Urban-serving Single Campus; or Assoc/Pub-U-MC: Associate's

- Public Urban-serving Multicampus (n = 113) were invited to participate in the online, electronic questionnaire (Appendix A).

Data collection. The questionnaire (Appendix A) was constructed and administered using Qualtrics. Online questionnaires have advantages over traditional paper questionnaires that include ease of participant response, and ease of data manipulation and analysis for the researcher (Evans & Mathur, 2005). The questionnaire (Appendix A) included 15 identifier and descriptor questions in six categories: Institutional Identifiers, Administrator Identifiers and Descriptors, Institutional Descriptors, Enrollment Descriptors, Credential and Degree Descriptors, and Faculty Descriptors. The researcher believed that by including demographic questions the data may provide additional institutional insights relative to the study.

For the purpose of this study, to be considered fully online: (a) the program of study must result in an associated degree or sub-associate's credential, i.e., certificate, diploma; (b) required courses and college student and ancillary services are available at distance; and (c) require no physical face-to-face meetings as part of a class or for the student to receive college services. Blending of online synchronous and asynchronous delivery formats did not preclude an institution from being included in this study.

Institutions providing a positive response to the last questionnaire (Appendix A) item, "I am interested in participating" were included in the pool for potential interview in the next step of the study. This pool was further limited to, and guided by, responses provided in Section 2, Column E, "What Practices Have Worked," of the questionnaire. Using this process of selection for inclusion in the next step of the study kept time and

cost at an acceptable level while simultaneously providing a means to identify interesting

and/or unique cases. However, since a single institution will be selected for study,

generalizability of the results is limited. The full questionnaire can be found in Appendix

A. Table 3 provides the correlation of research questions to the questionnaire and

response columns.

Table 3

Correlation of Qualitative Research Questions to Questionnaire Questions

Research Questions	Correlated Questionnaire Question or Column
1. Of the Instructional Technology Council categories, which are the top three that are sufficiently significant to consider them part of the primary group of administrative challenges?	Column B and C
2. Within the top three categories identified what is the single current, highest priority administrative challenge?	Column B
3. What strategies have you attempted to address this specific challenge?	Column D
4. Of these strategies, is there one that can be identified as a "smart practice" for your institution?	Column E
5. Identifiers and Descriptors	1-13

Questionnaire design, reliability, validity and analysis. Questionnaire design

and basic data analysis will be done utilizing Qualtrics. In designing the questionnaire

Qualtrics can utilize display and skip logic among a variety of other design features that

allow the questionnaire to be designed in a manner to minimize the amount of time

required for a participant to complete. This was expected to result in a higher rate of questionnaire completion.

The initial questionnaire was reviewed by colleagues possessing an understanding of fully online programs and degrees to determine if the questions being asked and responses being requested were valid and appropriate to gather topic-specific data (Merriam, 2009) and for construct validity, i.e., they measure what they intend to measure (Creswell & Plano-Clark, 2011). A pilot of the questionnaire included a small group of respondents to review the questionnaire for clarity of wording and time required to complete the questionnaire (Creswell, 2008). Based on feedback adjustments were made.

The Qualtrics program incorporates options for descriptive statistics that indicate general tendencies in the data, and inferential statistics to compare groups and relationships among groups important to analyzing the data (Creswell, 2008). Qualtrics also permits users to filter data, as well as options for qualitative data reporting. These functions will assist in narrowing the pool of institutions from which the case will be selected.

In addition to design advantages and basic analysis of results and reporting, Qualtrics allows for export of data to other programs such as Microsoft Excel and Statistical Package for the Social Sciences (SPSS) for advanced analysis if deemed necessary.

Data was cleaned by inspecting for scores outside acceptable ranges. The data was also reviewed for missing data. Missing data was resolved by contacting the

participant to capture the missing data. If the missing data could not be collected the participant was eliminated from the pool of potential participants.

Interview Process for Administrator

Case study is the most appropriate for how and why questions (Yin, 2009). Utilizing open-ended questions, interview data, and text analysis yielded data rich sources resulting in detailed descriptions (Creswell, 2009) that enabled the researcher to describe and analyze the process that was occurring as well as the outcome. This resides on the paradigm that the researcher was "particularly interested in understanding how things occur" (Fraenkel & Wallen, 1990; Merriam, 1988), and was looking for commonality, rather than difference of practice to identify smart practice that is adaptable to target institutions. In the second step of the study the researcher interviewed the administrator responsible for online courses and programs using the sub-questions listed in Table 4 to explore institutional practices responding to administrative challenges of online courses and programs.

Table 4

Correlation of Qualitative Research Questions to Interview Questions

Research Questions	Correlated Questionnaire Question
1. How can the administrative challenge be generally described?	1
2. How can the practice generally be described?	2, 3, 4
3. Where does the practice draw its strength, i.e., its effectiveness or capacity to reduce cost, increase performance, etc.?	5
4. Are there generic vulnerabilities of the practice?	6, 6a

Information captured in the online questionnaire (Appendix A) guided selection

of an institution where interesting cases were identified. After final selection of the

institution as the case, the administrator with responsibility for online programs was

interviewed. The interview process used open ended questions to capture qualitative data

that was examined for candidate smart practices and underlying themes.

Approved questionnaire modifications. Official approval for IRB project

number 15942 was received on March 17, 2016, with authorization to implement as an

exempt project on March 18, 2016.

Subsequent to initial approval two Change Request Forms were submitted. The

first received approval April 6, 2016. This change request was to alter questionnaire

(Appendix A) question number six. The original question would have exited institutions

from the questionnaire at question six if their fully online programs did not meet the

definitions of fully online programs and degrees, and if their student services were also not fully online and accessible to the at-distance student.

This change was based on feedback provided by participants in the questionnaire pilot. Pilot participants felt that few institutions would be able to respond "yes" to question six thereby eliminating potential benefit of capturing their responses to remaining questions in the questionnaire (Appendix A).

The second Change Request was approved June 16, 2016. This change was requested based on the results of the questionnaire (Appendix A). Of the total questionnaire (Appendix A) distribution (n = 113) 14 questionnaires were partially or fully completed. Of those (n = 14) five were unusable as they contained incomplete results. The remaining fully completed questionnaire (Appendix A) s (n = 9) were further reduced by three institutions due to their indication of non-interest in participating in the next step of the study. Net yield of usable questionnaire (Appendix A) s was 5.08%.

The questionnaire (Appendix A) net yield did not allow selection of participants from 12 institutions for interviews, as was originally proposed. This resulted in modifying the study from a collective-case study to a single-institution instrumental case study.

To accommodate the change from collective-case study to a single-institution instrumental case study required that the length of interview time be increased from 45 – 60 minutes to six to seven hours. The gross time increase was required to allow time to review all 14 Instructional Technology Council categories of administrative challenge, an

increase of two challenges identified in the Instructional Technology Council Distance

Education Survey Results (Lokken, 2016) at a single institution rather than just the

institutionally identified, single top-administrative challenge as originally proposed.

Modification of interview process. The researcher originally developed a series

of closed-ended interview questions to examine whether PCC practices could be

identified as smart practices. Through a phone call to arrange the interview, and during

the time immediately before start of the formal interview, it became apparent Dr. Online

possessed a wealth of prior experience and knowledge of distance and online education in

addition to direct experience with PCC's online courses and programs. At that time the

researcher decided to modify the interview questions and process to capture the breadth

of experience in the desire to better explore PCC's smart practices and understand the

administrator's responses to challenges of online courses and programs. The modified

interview protocol resulted in the use of open-ended and probing questions. Seven post-

interview emails were used to gain clarification on specific statements made during the

interview.

The open-ended question approach allowed Dr. Online to respond at much greater

length to each of the administrative challenges faced in the respective Instructional

Technology Council categories. The modified line of questioning resulted in a greater

breadth and depth of information for identification of candidate smart practice. Resulting

transcripts were analyzed and coded as originally proposed.

In April, 2016 the Instructional Technology Council released its 2015 Distance

Education Survey Results (Lokken, 2016) were published. Two additional administrative

challenges had been included for the first time: addressing accessibility and universal design, and institutional support from IT. These additional challenges appeared to be significant. As a result, the researcher added these two challenges to the existing 12 Instructional Technology Council challenges and were explored as part of the interview of the administrator.

Bounding the study. Instrumental case study is an in-depth exploration of a system that utilizes "bounds" as means to separate the cases out from the larger group of cases (Creswell, 2008). Bounds of a study influence interpretation of the research. Bounds of this study are: (a) setting, (b) participants, and (c) events.

Setting. The study included one purposefully selected community college within the IPEDS Plains Region. The process of selection for the college was based on the results of the questionnaire (Appendix A). The questionnaire (Appendix A) provided results that were reviewed and evaluated looking for unique, unusual or unexpected findings. Maximal variation was utilized to gain insight into variation of constituent parts for a given smart practice.

Participants. At the selected community colleges, the administrator charged with operation of online programs was interviewed utilizing the interview protocol found in Appendix C. As the administrator-in-charge these individuals had the breadth of knowledge and experience enabling them to fully understand and address administrative issues that have created the greatest administrative challenges to their online program.

Events. The administrator of the online degree program from the selected institution was purposefully selected for study. Embedded case study methodology was

used to describe and compare candidate smart practices responding to administrative

challenges. This provided insight into features of candidate smart practice (Creswell,

2008) to allow for inductive analysis.

Data Collection

      Interview/interview transcript. The single intensive interview took

approximately six and one-half hours and was held in the office of the Administrator

having oversight of the institution's fully online programs and degrees. The interview

was recorded for post-interview professional transcription completed at the University of

Nebraska - Lincoln, Bureau of Sociological Research.

      Researcher memos. The researcher used memos to capture significant thoughts

about, as well as details of, the interview. Memos were recorded as the researcher

reviewed the digitally recorded interview and while reading, and rereading, the interview

transcripts.

      Researcher field notes. The researcher verbally recorded notes post-interview.

This practice allowed the researcher to concentrate on, consider, and interpret the

respondent's answers during the interview. Verbally recording field notes post-interview

also allowed a short period of time to reflect on the participant's verbal responses and

nonverbal actions to add depth and richness to the description of the interview. A full

description of the interview protocol can be found in Appendix C.

      Institutional documents. Documents are an important means to corroborate and

augment evidence from other sources (Yin, 2009). With permission the researcher

planned to acquire a copy of the institutions operational/policy/process guide for fully

online programs and degrees. These documents were reviewed for information and additional insight which reflect and confirm administrative smart practices. These documents were either actual print documents or in electronic file format. A second form of documentation was compiled from the participants self-described smart practices found in columns D and E of the questionnaire (Appendix A).

Reliability, Validity, and Analysis

Reliability. In qualitative research, reliability refers to consistency in processes and procedures utilized by the researcher across, in the case of this research project, multiple embedded cases. Transcriptions were checked for obvious mistakes during transcription. Codes, and notes about the codes, were constantly compared with data to make sure there was no drift in the definition of the codes (Creswell, 2009).

Validity. Validity of findings refers to the extent which findings accurately reflect the phenomena intended to be represented. Data collected through participant self-described smart practice, interview and interview transcripts, researcher memos and field notes, and, institutional documents collected were used for triangulation (Creswell, 2009) to build a logical and coherent justification for identified themes.

Accuracy of the findings, supporting themes and descriptions as written in the final report were verified through member checking (Creswell, 2009). Member checking allows the participant to evaluate the accuracy of their experiences and meaning as reported by the researcher. The member check was performed using the electronic document file. A copy of the document file was sent electronically to the participant for review. Corrections and clarifications were added directly into the file by the participant

using "track changes". Upon return of the file, necessary modifications were made by the

researcher. The participant was notified of this request through a two-step process. First,

an email request was made followed by the email containing the member check cover

letter included with the electronic document file.

  Analysis. Data analysis and interpretation was based on Creswell's model (2009,

p. 185). Steps of the process were: (a) organizing and preparing data for analysis; (b)

reading through all data; (c) coding the data; (d) concurrently identifying themes and

their descriptions; (e) interrelating themes and descriptions; (f) interpreting the meaning

of themes and descriptions. These steps are congruent with the qualitative research

method in that the process progresses from the specific raw data to the general end result.

  Coding of responses. The participant was asked to respond to each of the

Instructional Technology Council categories of challenge by describing the challenge as

it existed at PCC. Responses were digitally recorded by the researcher during the

interview that took place in the participant's office. Digital recordings were transcribed

by staff at the Bureau of Sociological Research, University of Nebraska, Lincoln.

  The researcher read through the interview transcripts multiple times to become

familiar with the content. The interview digital recordings were listened to in part, or in

full, multiple times to reacquaint with the voice and perspective of the participant.

  This study used two approaches to analysis, deductive and inductive, principally

based on Saldaña's (2016) organization and description of coding practices. Attribute

coding is categorized by Saldaña (2016) as a "grammatical method" of coding. Saldaña

is not referring to grammar of language but to the grammatical principles of a coding

technique such as attribute coding which help to enhance the organization of qualitative

data. Descriptive coding is categorized as an "elemental method" of coding. Elemental

methods of coding provide a foundational approach to coding qualitative data for future

coding cycles. Both the grammatical method and the elemental method categories belong

to a larger group of coding methods called "first cycle coding" representing that these

coding processes happen during the initial coding of data. Saldaña further stated that

attribute coding and descriptive coding are appropriate for virtually all qualitative studies

by providing essential information about context for analysis and interpretation, and for

social environments.

Pattern coding is based on finding repetitive, regular or consistent patterns that

appear more than twice within the data. Multiple occurrences help the evidence become

more trustworthy since patterns demonstrate habits and importance (Saldaña, 2016).

Pattern coding is a "second cycle coding method" that provides an advanced way of

reorganizing and reanalyzing data coded through first cycle methods" (Saldaña, 2016, p.

233).

Deductive analysis. The deductive form of analysis utilizes attribute coding.

Gilgun (2008, p. 16) used the term "deductive qualitative analysis to indicate a form of

qualitative research that begins with a structure and that guides research processes, data

collection, analysis, interpretation, and the writing up of results." Gilgun's (2008)

description that includes beginning with structure, aligns with attribute coding; a form of

coding Saldaña (2016) categorizes as a "grammatical method." Attribute coding uses

basic predetermined descriptive information based on previous research (Meta Connects:

Research, Practice & Social Change, n.d.; Saldaña, 2016).

This study used Bardach's (2004) framework of four questions for extrapolation

as the basis to create the structure for categorizing interview responses. The questions

i.e. categories were: (a) how can the administrative challenge be generally described; (b)

how can the practice generally be described; (c) where does the practice draw its strength,

i.e., its effectiveness or capacity to reduce cost, increase performance, etc.; (d) are there

generic vulnerabilities of the practice.

Utilizing Bardach's (2004) questions to form the category structure for responses,

the researcher attribute coded the interview transcripts to align pertinent responses to the

four categories. This was done individually for each of the 14 Instructional Technology

Council categories of challenge. The researcher utilized memos created during the

interview attribute coding step as well as institutional documents to triangulate and

thereby increase the validity of the deductive analysis. The researcher reviewed the

coding results from the perspective of gaining "value on the cheap" (Bardach, n.d., p. 6)

as the basis to determine if the practice qualified as a smart practice. Several email

exchanges with Dr. Online (Table 2) occurred to clarify the researchers understanding of

Dr. Online's original responses regarding information critical to identification of

potential smart practices. In the end, four smart practices were identified through

attribute coding.

Inductive analysis. For the inductive analysis the researcher coded the interview

transcripts for the four identified smart practices anew using descriptive coding then

pattern coding (Saldaña, 2016). Descriptive coding starts without any predetermined idea

about which themes will arise from the process (Meta Connects: Research, Practice &

Social Change, n.d.).

Using descriptive coding, a word or short phrase was assigned as a label to a

passage of the interview transcription (Saldaña, 2016). As this researcher assigned words

or short phrases as descriptive codes, a list of the codes and their definitions were created.

This allowed the researcher to refer back to codes to prevent coding drift. This resulted

in an inventory of topics that was indexed and categorized for use in the second step of

the inductive analysis.

The second step of the inductive analysis utilized results of the descriptive coding

for pattern coding. Pattern coding is based on finding regular or consistent occurrences

of data. These patterns lend a level of trust to the evidence for the findings since

repetitive patterns demonstrate similar approaches to solving separate challenges

(Saldaña, 2016). To increase the "trust" (Saldaña, 2016) i.e. validity, the researcher's

field notes recorded immediately after the interview with Dr. Online along with

institutional documents collected from PCC were reviewed for substantiating information

and pattern coded.

Pattern and common codes were condensed into a summary format where links

were established and used to develop and identify underlying themes across all four PCC

smart practices. To increase the validity, the researcher once again utilized field notes,

memos created while coding and institutional documents to triangulate the findings.

Follow-up emails (Table 2) with Dr. Online provided clarification as well as new

information that caused one of the initially-identified five smart practices to be removed from the final list.

Researcher's Role

In qualitative research the researcher is in the role of the primary data collection instrument (Creswell, 2008). This creates the potential for researcher bias that may shape interpretation of the data. The interpretative nature of qualitative researcher self-reflexivity can influence interpretation of the findings.

This researcher believes that wise use of public funds is of prime importance. Based on this belief this researcher feels strongly in the importance of gaining maximum utility from expenditures of public funds. The goal of any expenditure should result in its fullest use to increase productivity without degradation of quality.

It is from this basis when thinking about processes and procedures that streamlined operations can result in reduced time, and therefore, conservation of resources. A secondary component of this conviction is relative to ideas, that institutional personal can learn from the mistakes of others. And more importantly, gain benefit from replication of their administrative smart practices.

The researcher is an associate dean at an IPEDS Plains region community college with direct responsibility for facilitation of early college, i.e., dual credit courses, professional continuing education and leisure courses. Former administrative experiences have included responsibility for both academic and vocational-technical degree programs.

Ethical Considerations

To comply with regulations of the University of Nebraska Institutional Review Board (IRB) for conducting research, approval will be obtained for this study as an exempt project (Institutional Review Board, n.d.). The NUgrant electronic submission system was utilized for submission of required information and materials. Required information and materials include: project information; description of participants; research methodology; purpose, methods and procedures; recruitment, benefits and risks; participant consent; confidentiality and data; attachments as applicable and/or required.

Reporting the Findings

Intentionally narrowing the focus of findings is a foundational component on which reporting occurred. Narrowing of the study occurred through identification of community colleges offering fully online programs and degrees. This list was further reduced by identifying those institutions reporting existence of self-identified smart practices used to resolve administrative challenges of fully online programs and degrees.

Demographic information was used to analyze group and subgroup results. The researcher looked for interesting, anomalous or unique results. These results provided the final point of list-restriction resulting in the identification of the study institution where the distance education administrator was interviewed.

Predicting how findings were to be reported from data collected was more difficult to identify since analysis of the data identified emerging themes. Evaluation and reporting were based on a flexible, emerging structure reflexively interpreted by the researcher (Creswell, 2008)

Interview transcripts and field notes were descriptively then pattern coded to reduce the number of overall codes to a manageable number. The resulting codes were grouped to identify four major themes. The resulting themes were used to identify and categorize specific smart practices. Documents gathered from participants were reviewed to both support, verify and potentially clarify practices identified after analysis of the interview data is complete. The final step was to identify and report out the four components Bardach (2004) identified as necessary to extrapolate a smart practice.

Chapter 4

Research Findings

Chapter Outline

This chapter is presented in three sections. The first section begins with summary of the context of the research, description of data sources, followed by a detailed description of the institution's background pertinent to the study, and closes with coding processes. The second section begins with a list of smart practices identified, a general description of each smart practice accompanied by a description of the institutional setting in which the smart practice was found. The last section presents findings reported in two sections: (a) deductive analysis to provide responses to Bardach's (2004) four questions of extrapolation; and (b) inductive analysis to identify themes found across the four smart practices.

Context of the Research

Instrumental Case study method. Instrumental case study methodology was used to examine candidate smart practices related to online education programs at a community college. The study sought to identify candidate smart practice that resolved administrative challenges to fully online courses and programs.

To identify the case a questionnaire (Appendix A) was distributed during the 2016 spring term to 113 public two-year, associate's degree-granting institutions in the IPEDS Plains Region. The questionnaire (Appendix A) was distributed April 10, 2016 and closed May 5, 2016. Two reminders encouraging completion of the questionnaire (Appendix A) were distributed, April 26, 2016 and May 4, 2016.

Selection of the case. Purposefully selecting an information rich case for study is essential in instrumental case study (Creswell, 2008; Leech & Onwuegbuzie, 2009; Patton, 1990). After comparison with the remaining community colleges indicating interest in continuing in the study (n = 6), selection of Plains Community College (PCC) was based on the following reasons the researcher felt PCC made an interesting case for study. First, PCC offers 19 fully online programs, compared to a range of one to thirteen, leading to an associate degree or sub-associates credential. Second, a significant number of full- (n = 10) and part-time faculty (n = 8) teach exclusively online. Only one other institution had faculty teaching exclusively online, part-time (n = 6). Third, PCC has a full time equivalent (FTE) online enrollment of 405 students, 20 percent of all FTE enrollment. The closest of the other remaining community colleges in the study was 11 percent. Fourth, PCC has offered fully online courses for more than 15 years and online degrees for 11 years which ranked second of all remaining community colleges. Finally, the participant, hereafter referred to as Dr. Online, the administrator responsible for online courses and programs, had 26 years of experience to share. This was six more years than any of the other remaining community colleges. These attributes stood out from other institutions in terms of the breadth of online offerings, participation of faculty and students, and the level of experience of the administrator.

Conceptual basis. The conceptual basis of this instrumental case study is smart practice research. Bardach stated smart practice can be anything that "aims to exploit, or take advantage of, some latent opportunity for creating value on the cheap" (Bardach, n.d., p. 6). The result of identifying smart practices is the expansion of potential solutions

with sufficient pertinent detail at a "source" institution to enable application at "target" institutions with similar challenges.

The researcher evaluated collected data from the perspective based on Bardach's idea of gaining value or "creating value on the cheap" (Bardach, n.d., p. 6). Another way to describe this perspective is to consider "leverage." In the physical sense a lever allows a force to be multiplied. In an economic sense it can be represented by borrowed capital i.e., "margin" to increase the potential return of an investment. A third example of this perspective is "buy-one, get-one," or more simply "two-for-one."

From this perspective the researcher utilized the third component of Bardach's (2004) four component process for extrapolation of candidate smart practices to decide whether the practice was or was not a smart practice. The practice was evaluated for its "strength" i.e., its ability to create value.

Data Sources

Dr. Online was the primary source of information for this study. Six and one-half hours of formal, face-to-face interview was digitally recorded. During the formal interview process Dr. Online was asked to respond to each of the Instructional Technology Council categories of challenge by describing the challenge as it existed at PCC. Information was also gathered from Dr. Online through the questionnaire (Appendix A) and from pre- and post-interview phone calls and email exchanges.

As part of the study process the researcher visited one of the PCC campuses. Before conducting formal interview sessions with Dr. Online, during lunch, and at the conclusion of the formal interview we engaged in extended conversation about his

institutions' background. This information was captured by the researcher in the form of field notes taken during discussion and memos recorded by the researcher after leaving the interview session but before departing PCC grounds.

Additional sources used in this study included information retrieved from PCC's web pages and website-accessible documents. Those documents were examined concurrent to the coding of the interview transcripts. Website documents that held information to triangulate responses from the interviews included PCC's: (a) strategic plan; (b) academic plan; (c) technology plan; (d) president's plan of work; (e) future work plan; and (f) retention plan.

Institutional Background

To create a foundation for interpretation and in order to make meaning of Dr. Online's responses to the formal interview questions, the researcher utilized an unscripted ice-breaker question prior to the start of the formal interview. Dr. Online was asked to describe what he felt to be unique attributes of PCC that influenced the institution to offer online courses and degrees. Dr. Online shared professional experiences and knowledge gained at PCC, and prior to beginning employment at PCC. This line of discussion continued during breaks at the campus visit, and follow-up continued in telephone and email exchanges. These descriptions and comments assisted in providing a rich and deep institution-specific frame of reference for the study.

History. PCC was founded over 75 years ago. Through state legislation, groups of formerly separate institutions were consolidated. One institution in the consolidated group now known as PCC had been in existence over 100 years. Although Dr. Online

pondered the influence of the individual institutions long histories on the culture of the institution, he expressed little doubt that the willingness of people at the school to try new things and be innovators was a major influence in how the institution has gotten to where it is today.

PCC is located in a state in which several distinct groups of higher education institutions were legislatively combined and placed under a single governing board in 1992. These distinct groups included: (a) state colleges; (b) two-year community colleges; and (c) technical colleges. The state's university system remained a separate entity. The resulting State College System utilizes a highly customized statewide records system to maintain student and employee records, institutional financial records, links to other State systems, and additional statewide supported software applications (State College System, 2016). The software these processes run on is currently being redesigned. Software upgrading will occur in stages over the next several years. Security of, and access to, the statewide records system is coordinated and controlled at the State level and not by individual member institutions.

Centralized processes that all member institutions must use are coordinated at the State level. Functions include: (a) employee and student user identification, reactivation and deletion; (b) student security authorization; and (c) operational data security (State College System, 2016). It is student user identity and operational data security that are pertinent to specific challenges referenced in sections below.

Online and Quality Matters®. Willingness to try new things is exemplified by the history of distance and online courses at PCC. In the late 1990's there were limited

courses offered online. Over time that number has grown. Administrators at the time recognized faculty interest in distance and online courses and "made decisions to add positions to help support" (Plains Community College, 2012; Plains Community College, 2015a; Plains Community College, 2015b; Plains Community College, n.d.a; Plains Community College, n.d.b; Dr. Online, personal communication, June 20, 2016) the growing interest. As new faculty were hired, administrators continued to support interest until "someone recognized 'hey, this could be a thing.'" That recognition resulted in increased permanent funding for distance and online courses.

Interest in online courses and programs continued to grow. In 2009 faculty teaching online attended Quality Matters®, a conference that culminated in the institutional decision to incorporate the Quality Matters® development and certification as the institution's method for development of online courses.

Quality Matters® is a continuous improvement model for assuring the quality of online courses (Online Learning Consortium, 2017) components of blended courses through a faculty peer-review process. Quality Matters® uses a research-based rubric that is updated on a regular basis to incorporate new research literature and best practices for online course design and to promote student learning. Options exist to have courses informally or formally reviewed for Quality Matters® certification.

The process of developing and certifying Quality Matters® courses requires each course be developed by the course instructor or instructors. Courses can gain Quality Matters® certification by an individual instructor or a group of instructors. In the event that multiple instructors take the course through the certification process, only when that

same group of instructors collectively teach the course is the course considered Quality

Matters® certified. In either event each instructor must be trained in the Quality Matters®

process.

PCC chose to incentivize the development and certification of courses that

followed the Quality Matters® guidelines by providing faculty stipends to take courses

through the Quality Matters® development and certification process. Once a course is

Quality Matters® certified it must be periodically recertified. Faculty are provided an

additional stipend for course recertification. To further enhance continued interest in

Quality Matters® certified courses, PCC assigns a mentor instructor to help guide the

lesser experienced instructor in the Quality Matters® process. The mentor instructor is

one who has taken multiple courses through the Quality Matters® certification process

and is a member of the courses' peer-review team.

As a result of these combined incentives, 74 courses have been Quality Matters®

certified online courses. It is anticipated that during the 2016-17 academic year a

required health or physical education course will be Quality Matters® certified. This

addition will enable PCC to offer a fully online Associates of Arts degree (Plains

Community College, n.d.) taking only Quality Matters® courses. These efforts will

leverage in-state marketing plans to increase enrollment (Plains Community College,

n.d.)

PCC has joined the National Council for State Authorization Reciprocity

Agreements (NC-SARA). Taking further advantage of the investment in Quality

Matters®, with reciprocity which establishes comparable national standards for offering

postsecondary online education courses across state lines, PCC can expand marketing efforts in an attempt to increase enrollment (Plains Community College, 2012, 2015). PCC does not have out of state tuition so offering affordable high-quality courses to out of state students is thought to have potential for increased enrollment.

Innovation and trust. Within the Instructional Technology Department, the director and staff, along with other employees of PCC, are not satisfied with status quo. Ideas are shared both in and outside the department, as well as with faculty who also bring new and innovative ideas to the department for consideration. The prevailing attitudes are that of willingness to experiment with technology and application of new ideas in a current setting, all with a focus of a better student and faculty instructional experience. Faculty are provided access to software and hardware in exchange for them piloting a trial and then presenting their findings to other faculty.

The Instructional Technology Department's approaches are innovation at a basic level. Characteristic of Dr. Online's enthusiasm toward innovative problem solving:

> "It's how you look at innovation and problem solving, what opportunities do you see and what do you do to try and take advantage of those. You are going to have a very different organization if it's made up of a bunch of people who 'Oh, we can make this better' or 'Oh, did you see this cool thing? Let's add this.' If you have an organization that values innovation, we can always make it better. We're here for the students and we want to do a better job of helping them. That really creates a really wonderful working environment" (Dr. Online, personal communication, June 20, 2016).

To encourage others to be willing to innovate involves creating a foundation of trust between faculty, Instructional Technology Department staff and college administrators. Dr. Online stated due to PCC's organizational culture there exists a willingness "to try this, or this other thing. If I offered 'Hey I'm looking for someone to

pilot this software'" (Dr. Online, personal communication, June 20, 2016) this lends to a building of trust allowing faculty to take risk. "Not everyone takes that approach but there are enough to create a critical mass, a cohort of people, that it's kind of like a special club" (Dr. Online, personal communication, June 20, 2016).

In 2010 PCC enrollment had stalled. Changes of structure that affected the Admissions department contributed to the stall. However, the Vice President of Academic Affairs recognized the need to try new things to increase enrollment (Plains Community College, n.d.). Marketing of Quality Matters® certified courses was increased, resulting in increased online enrollment. Dr. Online projected that during the 2016-17 academic year total distance enrollment would exceed campus-based enrollment.

This projection would have been correct if changes in the number of distance, specifically telecommunication, courses offered had not occurred. In a follow-up email exchange, Dr. Online indicated that although online and hybrid courses had increased 5% by early spring 2017, the number of two-way audio-video i.e., telecommunication courses had been reduced in the 2016-17 academic year, resulting in a 4% decrease in enrollment in that category. The net result was 47% of PCC's FTE being generated through courses offered at a distance (Dr. Online, personal communication Feb. 10, 2017).

Forethought and planning. Forwarding thinking and planning are encouraged by example of the college President as a role model. This ideology is exemplified by the PCCs' President's philosophy that employees of PCC should have the audacity to break some rules and distinguish themselves (Plains Community College, n.d.). Under

Presidential direction a new strategic plan was developed for 2015-2020 that provided a

blueprint for PCC. New mission and vision statements were created. PCC also created a

"heart" statement that incorporates PCC's values into a single statement to recognize that

students are the driving force that propels PCC toward accomplishing its vision and

mission on a daily basis.

PCC has an extensive set of planning documents that support the perspective of

forward thinking and planning. Progress required change and steps to accomplish

change. Such steps should be well considered by stakeholders that will be affected by, or

involved in, the required steps (Plains Community College, n.d.). Pertaining to the

combination of forethought and planning, Dr. Online stated:

> "One of the things you have to understand is the interrelationships between areas, the dependencies, where if I'm going to do this it will trigger that. You have to understand those. If you think you're fixing one thing and because you don't know all the relationships and interdependencies, you break something else that makes a new problem that is worse than the problem you were solving" (Dr. Online, personal communication, June 20, 2016)

To properly address making appropriate changes, both details and the

larger setting must be understood.

Organizational structure. Organizational structure of PCC pertinent to this

study include the following offices, departments and positions: College President; Vice

President of Academic and Student Affairs; Chief Human Resources Officer; Director of

Instructional Technology; Dean of Student Affairs; Director of Technology; Instructional

Technology Department; Management Information Systems; and TRIO (see Figure 1).

College President

Vice President -
Academic &
Student Affairs

Chief Human
Resources Officer

Director of
Instructional
Technology

Dean of Student
Affairs

Director of Technology

Instructional
Technology
Department

TRIO

Management
Information
Systems (MIS)
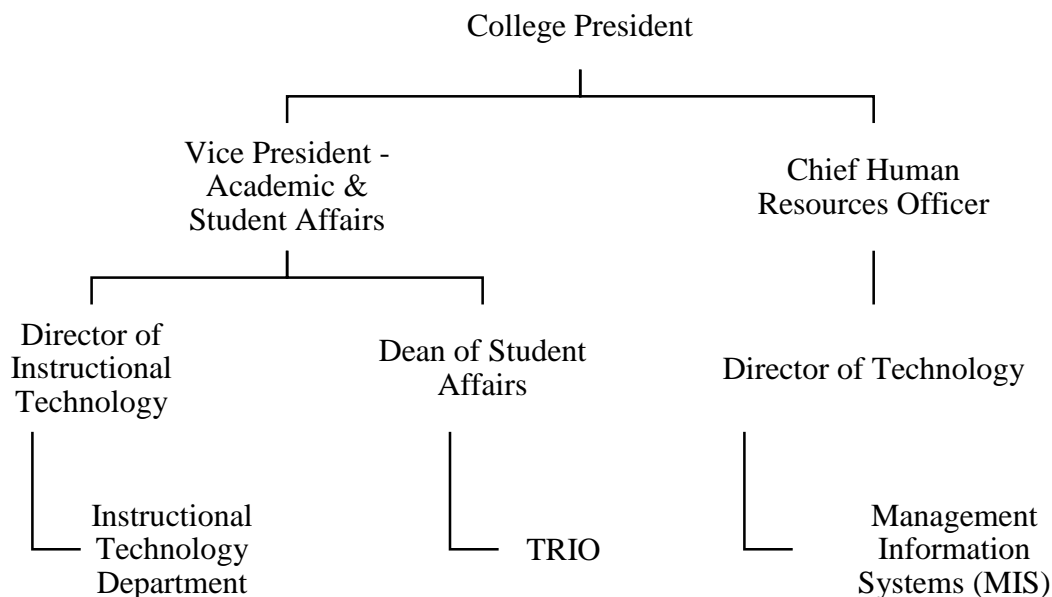
Figure 1. Organizational structure.

Student Affairs and TRIO reflect the traditional areas of functional responsibility. However, areas of responsibility for the Director of Instructional Technology and Director of Technology are not as easily distinguished. The key difference is the inclusion of the word "instructional" in the title of the former. The Director and Instructional Technology Department work with students, faculty, and spaces those people occupy. They are responsible for supporting instruction and end-user instructional technology. The Director and Instructional Technology Department have regular and constant contact with students and faculty. The Director of Technology along with MIS support the hardware and software utilized in support of those infrastructure systems. The Director of Technology and MIS department have little contact with students and faculty unless dealing with user account security or log-on issues (Plains Community College, 2012).

Coding Processes

The researcher used both inductive and deductive approaches. The deductive form of analysis utilized attribute coding. Attribute coding uses basic predetermined descriptive information based on previous research (Meta Connects: Research, Practice & Social Change, n.d.; Saldaña, 2016). This study used Bardach's (2004) framework of four questions for extrapolation as the basis to create the structure for categorizing interview responses. Results from attribute coding were used to analyze responses specific to each of the individual four candidate smart practices identified at PCC.

The interview transcripts were then re-coded inductively, first using descriptive coding, then using pattern coding (Saldaña, 2016). Using descriptive coding, a word or short phrase was assigned as a label to a passage of the interview transcripts (Saldaña, 2016). This resulted in an inventory of topics that was indexed and categorized. Pattern and common codes were condensed into a summary format to identify underlying themes across all four PCC smart practices.

Smart Practices

Applying Bardach's (2004) concept of creating "value" to the 14 Instructional Technology Council categories of challenge, five practices were initially determined to be smart practices. However, during validation through the member check, it was discovered that the institution had changed its strategy which resulted in invalidating one of the five smart practices. Details of that change are addressed later in a section of the study.

The remaining four smart practices are shown in Table 5 along with PCC's hierarchical and the time-sensitivity ranking for the challenge. Each smart practice is identified along with a general description of the smart practice, as well as, a description of the institutional setting i.e. context in which the smart practice functioned.

Table 5

Smart Practices

Instructional Technology Council Challenge	Institutional Challenge Rank	Intuitional Challenge Category	Smart Practice
Adequate student services for eLearning students	1	Current – Critical	Yes
Adequate assessment of eLearning classes	2	Current – Critical	Yes
Accessibility and Universal Design	5	Current	Yes
Support staff needed for training and technical assistance	9	Resolved	Yes

Instructional Technology Council challenge: Adequate student services for eLearning students.

General description of the administrative challenge. The challenge of providing adequate student support services for eLearning is of long standing. Although PCC's specific challenge is a subset of the overall range of student services needed by distance students, technology is being evaluated as a means to create a solution (Plains Community College, 2015) just as it was when the focus was on providing courses to the online students.

Providing student services and tutoring to online students outside the normal business day is a challenge that exists due to PCC being geographic- and time-static

while students are geographic-mobile and time-flexible. Times during which students work in their online courses are based on personal schedules that can be at any hour on any day. Compounding the impact of the time factor are online students that reside in time zones different than PCC. In extreme cases highly mobile students have participated in online courses from multiple time zones in a given year (Plains Community College, n.d.b; Dr. Online, personal communication, June 20, 2016).

Institutional setting of challenge. Dr. Online described PCC as a "little institution" generating 2,000 FTE students annually. Dr. Online observed, "We have students in Singapore and students in Sweden. Just how many time zones are we spanning here? A number of other schools in the same boat [and] if a number of colleges came together . . . we could have 24/7 support for online courses and advising" (Plains Community College, 2015a; Dr. Online, personal communication, June 20, 2016).

It is reasonable to assume that PCC will continue to market to online students as a means to financially augment on-campus enrollment. Continual marketing means that finding a solid and reliable way to connect with online students may result in improved services to all PCC students. Students located regionally, or even located in dorms, may benefit from new methods of accessing services.

Institutions within the State College System continue to encourage developing a state-wide system, comprised of multiple institutions which are capable of sharing responsibilities, enabling them all to provide services over a wider range of days and hours for the online student. Budgets continue to impact that ability, as well as the agility of smaller institutions to research and resolve these issues at a level of service preferred,

and possibly expected, by students. Individual smaller institutions lack the resources to

fully staff all services at times convenient for online students. "So, we're moving the dial

but it's a slow process" (Dr. Online, personal communication, June 20, 2016).

Because the budget is insufficient (Plains Community College, 2015) to support

currently existing solutions of support for online students, PCC has been forced to

evaluate other options in order to deliver specific high-need services to students. A

review of the interview text indicated two specific needs, tutoring and advising (Plains

Community College, n.d.). Students in time zones different from the institution, as well

as students working in online courses within PCC's native time-zone, needed access to

services at convenient times.

Limited options existed that fit both need of the student and PCC requirements of

affordability and flexibility. Provision of tutoring services has been resolved through

Smart Thinking®, a limited-contract online tutoring service. In-person tutoring can be

accessed by students attending at a campus, and both local and online students can access

tutoring through Smart Thinking®. Advising for online students currently requires

scheduling an appointment into the future, which can interfere with timeliness of student

need. Although not as timely a solution as would be preferred, it does make advising

available outside of PCC's normal hours of operation.

Student Services' budget was sufficient to cover limited contracting with Smart

Thinking® but not for staff overtime. This shortfall resulted locating a different funding

pathway in order to cover overtime costs for advisors. Due to the collaborative nature of

PCC, a budget line within the Instructional Technology Department was identified to

cover overtime costs of advisors in their native divisions. Although the allocation is not sufficient to cover all needs, it does allow for limited after-hours advising.

PCC's innovative and collaborative nature may give rise to a more permanent solution. PCC was recently successful in being awarded a federal TRIO grant. Despite having staff at a single location, PCC still needed to devise a way to deliver TRIO services to the two other campuses (Plains Community College, 2015). Technology was leveraged as a means to accomplish the goal, by implementing an innovative solution involving a live audio-video connection (Plains Community College, 2012). PCC was able to bridge the physical distance between campuses, thereby allowing the fixed-location TRIO staff to support students at the other campuses.

The initial trial used simple tablet-type technology to create an interactive experience. As trials continue, the next iteration will be developed using WebEx or a similar video technology to create an even more interactive experience. If trials continue to be successful, more sophisticated technology and software will be used to adapt conferencing ability for use through a webcam and, potentially, a personal cell phone. Through a higher level of connection of staff-to-student using immersive technology, it is hoped that the perceived distance felt by the student will be reduced.

Through collaboration, by building on the end result of the TRIO distance student delivery project, and "when the bugs are worked out for the technology processes" (Dr. Online, personal communication, June 20, 2016), those same methods will be brought into use for delivery of services to online students. Sharing of project results allows other

divisions of PCC to benefit without having to make similar investment in the research and development stages.

Leveraging proven technology solutions provides the institution an inexpensive means to support online students in receiving equivalent services. The solution also allows PCC to conserve staff time and travel expense by substituting technology as the means to connect with students. Value is further added by utilizing current investment in infrastructure, technology and multiple software applications, thereby increasing the return on investment already made.

Instructional Technology Council challenge: Adequate assessment of eLearning classes.

General description of the administrative challenge. Originally "courses were just kind of picked up from the face-to-face and shoehorned into online delivery without any real adaptation for . . . those core outcomes" (Plains Community College, 2015a; Plains Community College, n.d.a; Dr. Online, personal communication, June 20, 2016). According to Dr. Online, little thought went into how to optimize courses for online delivery, and how to best utilize tools that were available to make an engaging course. The "shoehorning" of courses also included use of standard course and classroom evaluation documents without adaptation for online courses.

Institutional setting of the challenge. The challenge for PCC was tangential to Instructional Technology Council's challenge category. Specifically, although PCC has not identified Quality Matters® course certification processes as a replacement for course evaluation, activities about how courses are informally evaluated indicate that, in fact,

this is occurring. Further, secondary benefits that qualify as smart practices arise from PCC's activities related to Quality Matters® certification and its de facto nature of evaluation.

Originally, online courses at PCC consisted of taking courses developed for the traditional classroom, and with little modification began delivering them online. Course evaluations were handled in a similar manner. Dr. Online did not provide a description of changes that PCC underwent in early days of offering courses online. However, based on the interview transcripts, momentum to implement Quality Matters® as a method of preparing courses for online delivery and certification began with faculty. It also appeared that this same momentum is carrying forward the future development of an evaluation form for online courses.

Quality Matters® guidelines used for course development appeared to have also been used as a substitute for the more formal online course evaluation, relegating the traditional course evaluation to a secondary position. Although not stated directly, but rather based on operations and approaches described by Dr. Online, Quality Matters® certification has become the de facto basis for evaluation of online courses.

The Quality Matters® rubric was created specifically as a tool for online course development. The Quality Matters® rubric is based on current academic research on what constitutes effective learning (Quality Matters, 2017). The Quality Matters® rubric is updated as needed, reflecting changes in research findings. These qualities are what lead PCC to adopt Quality Matters® as a formal approach for the design of online courses. Continued use of Quality Matters® is due to the positive experiences of instructors who

have had courses Quality Matters® certified. It is highly probable that a new evaluation

process for online courses will be created, based on continued instructor interest.

Quality Matters® course certification had been formally implemented at the

institution three years prior to Dr. Online's arrival at PCC. Through Dr. Online's

discussion with instructors, it became obvious that they were becoming comfortable with

the Quality Matters® guidelines and requirements for certification. Piloting the first

course through the Quality Matters® processes is a major undertaking for the instructor.

Subsequent courses were described as much easier to do once the instructors became

more familiar and comfortable with Quality Matters® requirements.

Continued interest from faculty in developing courses through the Quality

Matters® process was critical. "I just saw this as okay, it's here, it's accepted, you've got

faculty who are doing this, faculty who are interested and I'm going to run with that" (Dr.

Online, personal communication, June 20, 2016). Dr. Online recognized, while it's a lot

of work for the faculty, PCC had a structure in place, along with financial incentives, to

accommodate additional growth.

The process requires continued administrative support as costs of Quality

Matters® are interpreted by "our CFO as a cost, I see it as an investment" (Dr. Online,

personal communication, June 20, 2016). Aligning with the idea of Quality Matters® as

an investment, upper administration saw advantage in supporting continued investment in

online courses (Plains Community College, n.d., 2012). This support resulted in

temporary elimination of the annual budget cap, which allowed for paying incentives to

faculty for developing/offering courses through Quality Matters®. This is "where I

thought I could get the fastest traction, the biggest bang for the buck and that has really helped and we went from 11 Quality Matters® certified courses to 72" (Plains Community College, 2015a; Dr. Online, personal communication, June 20, 2016).

Continued financial and instructional support contributed to sustained growth in Quality Matters® certified online courses that represented primary return on the investment. Secondary benefits have emerged from this investment, causing PCC's response to this challenge as a smart practice. Those additional benefits are described below.

Instructors have indicated to Dr. Online that applying the Quality Matters® rubric for online courses results in time savings. When instructors incorporate the Quality Matters® rubric items they find that "in my online [course] that cuts out all these [repeated] questions that were . . . taking a lot of my time" (Dr. Online, personal communication, June 20, 2016). Instructors implementing the Quality Matters® rubric in their non-Quality Matters® online courses brings them "that much closer [to thinking] 'I could take this other course through Quality Matters®'" (Dr. Online, personal communication, June 20, 2016).

According to Dr. Online, when an instructor takes their first course through Quality Matters®, they start applying those same Quality Matters® rubric designs in their other courses, whether they are face-to-face or whether they are online, because they see that it is just good practice. "When I talked with the faculty, every single faculty who'd taken a course through Quality Matters® said this has made me a better teacher" (Dr. Online, personal communication, June 20, 2016).

A potential benefit of the increased confidence of becoming a better teacher may result in increased levels of trust between instructors and with staff. Dr. Online stated that a Quality Matters® instructor will place a non-Quality Matters® instructor in a course as a student to see how it is set up and how it functions. In this way, the non-Quality Matters® instructor is able to observe how the instructor would interact with the students. Due to FERPA, the non-Quality Matters® instructor is never added into a course shell where students are actually enrolled. Additionally, the faculty mentor, an experienced instructor who has authored multiple Quality Matters® certified courses, will be enrolled in a course in order to provide additional feedback to the instructor. This allows the faculty mentor to view the course design and to witness how the instructor would interact with students. As in the description above, no students are in the course.

Student retention was also identified as a secondary benefit of Quality Matters® course certification. In an informal study, Dr. Online compared success rates for students taught by faculty who have taken online courses through Quality Matters®, with those taught by faculty who had not received Quality Matters® training. The study found that student success was 5% higher for those students in courses taught by instructors who had taken courses through Quality Matters® certification.

Another factor identified as aligned with student retention at PCC was convenience. "We do have full degrees you can get online" (Plains Community College, 2012; Plains Community College, 2015a; Plains Community College, n.d.a; Dr. Online, personal communication, June 20, 2016) that make it highly convenient for the student. Instructors continue to strive to make online courses convenient for the student. One

example brought forward was an online chemistry class that has an "Amazon shopping cart, you buy this stuff, you do these experiments in your own kitchen" (Dr. Online, personal communication, June 20, 2016).

This impact of convenience was substantiated by growth of enrollment in online courses. For the 2015 – 16 academic year, Dr. Online stated that when hybrid and interactive television courses, also forms of distance education, are added in, 49% of all PCC courses are mediated, i.e. distance-delivered in some way. Online enrollment continues to be slightly outpaced by on-campus enrollment. However, for the 2016 – 17 academic year online enrollment dropped to 47% due to the reduction in the number of telecommunication course offered.

Although marketing precedes a student's enrollment, it is noteworthy that Quality Matters® certification has enhanced potential for increasing enrollment by marketing courses to students outside PCC's home state. As online courses and programs become more available and students are more comfortable taking courses online, competition for the online student increases. For this reason, PCC maintains membership in the regional SARA as a means to increase flexibility in offering courses across state borders (Plains Community College, n.d.).

Instructional Technology Council challenge: Addressing accessibility and universal design.

General description of the administrative challenge. PCC is a major producer of instructional media for their courses. Much of the institutionally-recorded video is instructor-generated that requires closed captioning. The institution is evaluating the

most efficient and cost effective approach to add closed captioning to the videos. In

addition to the need for closed captioning videos, students need to be able to view, hear

and use the college website on a wide variety of personal/handheld devices (Plains

Community College, n.d.). Not addressing accessibility and universal design issues

required by the Americans with Disabilities Act leaves the institution open to potential

legal issues, fines and intervention by the Office of Civil Rights.

Institutional setting of challenge. Although enrollment in distance education at

PCC represents only a slight minority when compared to enrollment on campus, videos

are commonly used for a variety of distance education and on-campus uses. Distance

education courses of all methods of distribution commonly incorporate videos as back up

for lecture, and as embedded videos or video clips in online courses. Campus-based

courses use videos for on-campus students who need to view a missed lecture or that

simply want to review a lecture.

Leveraging technology as a means to gain value has played a major role in

adaptive technologies for PCC. PCC uses technology as a means to render additional

value; some technology is derived from investment in software purchased for other

primary uses. Universal design is being built into new website software, that renders

webpage content correctly so screen readers are able to parse the page properly (Plains

Community College, 2012; Dr. Online, personal communication, June 20, 2016).

Technology to convert text-to-speech is a common function among a variety of software

programs including Adobe Reader® and Microsoft Office®.

Integration, however, of subroutines in major software packages to automatically add closed captioning, speech-to-text, are not yet as common (Dr. Online, personal communication, June 20, 2016). Options for automated closed captioning do exist but are either expensive per unit of video run-time, or requires human post-conversion processing to correct errors left over from automated processing, such as occurs with free conversion using YouTube®. A simple example at PCC is psychology, "one psych class [has] 2,200 minutes of video [but] converting it would still cost $2,200 at a reasonable rate of $1/minute" (Dr. Online, personal communication, June 20, 2016).

PCC currently relies on a combination of more expensive processing methods provided by external suppliers for quicker turnaround, supplemented with less expensive automated methods that are less accurate and that require additional human correction. Selection of the method for adding closed captioning is based on the immediacy of the need and availability of human resources in the form of student workers enrolled in the institution's transcription program (Dr. Online, personal communication, June 20, 2016).

The institution is still experimenting with the closed captioning process, and has found that lead time is the critical factor for selected method of adding closed captioning. Lead time is determined by the amount of time between when a student with a known need for closed captioned videos is registered and the start date of the class. If sufficient lead time allows, Dr. Online encourages instructors to take advantage of that lead time to record new HD videos with updated content prior to adding closed captioning. Doing so adds further value through simple updating of the video content.

For the intermediate- to long-term solution, PCC will select the method of closed captioning based on availability of sufficient budget. Additional available budget capacity will allow the institution to move forward with closed captioning at an increased pace. Until adequate budget is available on a regular basis, PCC will rely on the combination of methods to supply closed captioning for the most immediate need.

Instructional Technology Council challenge: Support staff needed for training and technical assistance.

General description of the administrative challenge. The institution faced two interrelated technology challenges. Instructional Technology Department staff need to be technically skilled and have the opportunity to keep their skills and knowledge-base current relative to evolving hardware and software (Plains Community College, 2012). The Instructional Technology Department also need to standardize the technology, electronic hardware and electronic systems and services they are charged with maintaining. Both need to be accomplished without adding employees.

Institutional setting of the challenge. PCC is a multi-campus college that is part of the State College System. Technical support staff for the institution are housed on one campus and at a distance from the other two. A large number of fully online courses and programs are offered in addition to being a self-described heavy user of self-produced instructor videos (Dr. Online, personal communication, June 20, 2016). This creates significant demand for technical skills to support audio-video media, in addition to technical skills required to design, build, maintain and upgrade the 70-plus electronic

classrooms on the college's three campuses (Plains Community College, 2012; Plains Community College, 2015a).

Vendor selection for upgrading electronic classrooms has further complicated support provided by the Institutional Technology Department. As is common for public institutions, vendor selection is based on the lowest bid. This has resulted in large variations in hardware and software installed in electronic classrooms, along with considerable variation in installation practices (Plains Community College, 2012; Dr. Online, personal communication, June 20, 2016). A secondary issue arising from the variations has been the need to hire technical support from the vendors that performed the original installation.

To resolve this issue, and to keep electronic classrooms equipped with current hardware and software technology, Dr. Online chose to invest in training for technical staff in place of hiring more expensive vendor-supplied technicians. In doing so, the technicians must "have the right range of skills to provide the support you need, but also then, in the right percentages for what you're trying to cover" (Dr. Online, personal communication, June 20, 2016; Plains Community College, 2012).

To accomplish this balance has required an entrepreneurial approach, one that seeks for opportunities to maintain staff with proper skills and knowledge, yet with potential excess staff-time to service other campuses and institutions. This has meant looking for opportunities to collaborate with other institutions (Dr. Online, personal communication, June 20, 2016).

According to Dr. Online, multiple benefits are gained through this approach to staffing. Technicians can be hired out to other campuses and institutions during times of low demand at their home institution. This allows other institutions to gain access to expertise not otherwise available, and at a reasonable cost.

Conversely, the technicians have gained skills and technical knowledge through exposure to technology not used on their home campus.

> "Beyond simple exposure to other technologies, the staff are also exposed to other configurations of equipment compared to what we use, and different instructional approaches used by the faculty at other institutions. This combination provides a wealth of new ideas that can then be incorporated into our own rooms, which provided more options for our faculty" (Dr. Online, personal communication, June 20, 2016).

For Dr. Online, hiring-out technicians provides a means to generate revenue covering personnel costs, while maintaining positions at a full-time rather than part-time status.

One of Dr. Online's goals was to "control one's own destiny" through having staff with technical expertise to tightly control bid-specific technical requirements and installation. Skills and knowledge gained through training and subletting tech staff to other institutions resulted in the Instructional Technology Department's ability to have oversight of the electronic classroom design, bid, and build process (Plains Community College, 2012, 2015). Although there are some services yet performed by external vendors, they are limited.

Efficiency of technician staff time was further enhanced as systems were upgraded modifications were made to allow servicing and programming of electronic classroom equipment from a distance. This standardization of electronic classrooms and

supporting systems across the institution reduced staff travel time and expense (Plains

Community College, 2015).

Standardized room operations and controls allows the operation of the

technology to:

> "be self-explanatory [so] when you hit the button to power on the room it fires up
> all the appropriate equipment [just] like turning on the light switch. Technology
> should not get in the way of what you're trying to do with teaching". (Dr. Online,
> personal communication, June 20, 2016)

Standardization also has value for instructors. Although there are some services yet

performed by external vendors, they are limited.

Hiring technical staff out to other State College System institutions allows income

to be generated from external sources during times of low-demand of the employing

institution. External jobs have provided opportunities for the technical staff to further

hone their skills and knowledge, resulting in increased time-efficiency and expanding

their knowledge base as new problems have been encountered. In certain instances,

sufficient knowledge and experience was gained to allow the technical staff to gain

industry certifications.

Unrelated to Instructional Technology Department tech staff, but directly related

to training and technical assistance, is an interesting approach to instructor training. The

Instructional Technology Department is able to fund instructional faculty projects (Plains

Community College, 2012). These requests commonly are for software or a new

technology device. If funded by the department, the instructor agrees to present the

results of their experience to other faculty. Doing so keeps the interest of instructors in

searching for new classroom technology and results in training for other instructors. Both

experiences help to supplement Instructional Technology Department staff time. For the

Instructional Technology Department's small financial investment, it provides a means to

leverage funds in exchange for external-department staff assistance, while allowing

exposure to new technology for PCC's faculty.

Analysis of Findings

      Deductive analysis. Reporting of the findings that resulted from deductive

coding will be summarized individually for each smart practice using Bardach's (2004)

four questions of extrapolation as a framework: (a) description of the problem or

opportunity to which the practice is addressed; (b) generic description of the practice; (c)

where the practice draws its strength; and (d) generic vulnerabilities.

      The first question of extrapolation, a brief description of the challenge, or as

Bardach (2004) refers to it, the problem or opportunity, is provided as the challenge

exists for PCC. The second question of extrapolation is specifically answered based on

practices PCC is using to address the challenge. The third question of extrapolation will

be answered through a listing of the strengths of practices responsible that added value.

These are categorized and reported in one of two categories of elements, "essential" those

elements that do the basic causal work producing value, and "supportive" those elements

that make the practice work better and or keep it from failing (Bardach, n.d.). The fourth

question of extrapolation is the smart practices' vulnerabilities; those items that may

render a smart practice of less or no value.

Adequate student services for eLearning students.

Description of the problem or opportunity to which the practice is addressed.
PCC required a means to provide online students support and services normally found on campus. The top two priorities were the ability to deliver tutoring and advising to online students. These services needed to be available for students outside of normal operating hours of the college and at distance from any of the college's three campus locations.

Generic description of the practices. PCC has current practices in place to provide advising and tutoring. Neither existing practice can be considered a strong practice, or a practice that returns value beyond that invested, i.e., nothing clever is being done to get something for nothing (Bardach, n.d.). Even though advising services are being funded through inter-departmental collaboration by sharing budgets, which, although not extremely common, and does not add value, it provides limited funding for the service. Functionally similar, tutoring is provided through a contract with an external supplier to provide limited services during hours when the college is closed.

The practice that will provide value is currently under development. TRIO's development of an audio-video project is not only innovative in itself, but represents an innovative, and potentially collaborative means for Student Services to solve the challenge of providing their services to online students. Having the ability to influence design of the basic audio-video system, then to experiment with more advanced technologies allowing connection to personal devices, will in the future result in greater benefit for TRIO program students, as well as students in the wider array of PCC's divisions as the TRIO solution is shared or replicated.

Where the practice draws its strength. Strength of this smart practice is found by compounding the value of the original investment of research and development by one department, then sharing the resulting product, method, process, etc. eliminating repeated investment in research and development. Using Bardach's (n.d.) idea of the "free lunch," there are several opportunities where PCC appears to be gaining an increased value from investment and development of the audio-video connectivity.

Essential elements of the practice included: (a) leveraging technology as a direct means to reduce investment of time and cost, by replacing travel to the institution's other two campuses for TRIO staff while creating an inexpensive means to provide their services to students on the remote campuses; and (b) conservation of resources for the TRIO project in time, and cost of travel, that could be reallocated for other needs. Similar types of resource conservation may be derived from other college divisions as the project matures, leading to greater use of the system creating additional value.

Supportive elements include: (a) inter-departmental sharing of ideas and innovative organizational culture at PCC, resulting in technology mediated solutions; (b) collaboration among the colleges' departments, assisting with expertise that TRIO staff do not have; and (c) sharing of departmental resources, financial and staff, including technical and non-technical staff to support the project into the future.

Generic vulnerabilities of the practice. Vulnerabilities exist in two general areas. The first area is funding. The current process of providing tutoring via a contracted external supplier and after-hours advising, requires funding be allocated annually and to maintain current levels of funding. Second, a culture of innovation and collaboration

needs to exist. Although it is leveraging technology that creates the value, participants must be willing to work together for the greater good of the project.

Adequate assessment of eLearning classes.

Description of the problem or opportunity to which the practice is addressed. Content and format for PCC's initial online courses were essentially copied from the classroom-delivered course format, and dropped into the online course delivery. No adaptation of content, format, or method of instruction was made. Course evaluation and assessment processes were handled in the same manner.

Generic description of the practice. Instructors at PCC were the first institutional supporters of Quality Matters®. Building on the initial interest of faculty, PCC administrators adopted Quality Matters® as the college-approved method of development for online courses. The Quality Matters® process of online course development, itself, represents the smart practice.

Where the practice draws its strength. Faculty members leverage investment in Quality Matters® by utilizing various design components to improve both their Quality Matters® and non-Quality Matters® courses.

Essential elements of the practice are:

1. replication - faculty became familiar and comfortable with Quality Matters® processes that resulted in additional courses being developed and submitted for Quality Matters® certification

2. time savings

a. the more courses an instructor develops following the Quality Matters®
guidelines the more proficient and experienced the instructor becomes in
course development

b. instructors began to utilize Quality Matters® techniques in other non-
Quality Matters® online courses that, as an example, reduced common
questions from the students by addressing common questions in the course
materials thereby eliminating the need to answer the repeated question
multiple times.

Supportive elements of the practice include:

1. student enrollment - students began equating Quality Matters® courses with a
better course experience that resulted in searching out Quality Matters®
courses in future academic terms

2. professional expertise - faculty felt that by using Quality Matters® processes
they were becoming better instructors

3. trust

a. a team approach is used in the development of a Quality Matters®
course with the team being comprised of the course
instructor/developer, a second instructor as the faculty mentor and staff
from the Instructional Technology Department as course designer

b. an instructor of a Quality Matters® course will place a non-Quality
Matters® course instructor in the course as a student to see how it is set

up and how it functions; where they can observe how the instructor

will interact with students.

Generic vulnerabilities of the practice. Stipends are paid to instructors for development of Quality Matters® courses. Stipends are funded through technology fees levied on online courses. If the amount of fees generated are reduced, availability of stipends could be affected.

Addressing accessibility and universal design.

Description of the problem or opportunity to which the practice is addressed. PCC is a major producer of instructional audio-video media for their courses. Closed captioning needed to be added to instructor created video libraries. PCC sought to determine the most efficient and cost-effective method for this to be accomplished. In addition to closed captioning, the rapid increase in the number of personal electronic devices require that other forms of electronically distributed college materials and media be accessible on those devices.

Generic description of the practice. PCC currently uses two approaches for adding closed captioning. First, in situations where little lead-time existed to add closed captioning, an external vendor was contacted to perform the service. Second, if lead-time was not a restraint, PCC used a combination of initial automated closed captioning available through YouTube® followed by a clean-up round completed by a work-study student.

Where the practice draws its strength. Leveraging software adds value by utilizing software that has been purchased by PCC for primary functions other than purposes of accessibility.

Essential elements:

1. leveraging software

   a. using currently owned software that contains integrated subroutines to perform initial speech-to-text, text-to-speech, or parsing and rendering functions, to make media accessible across all devices

   b. conservation of funds by utilizing least-cost methods when lead-time allows reserving more expensive methods for instances having little lead-time

   c. hiring students or work-study students from campus-based programs where transcription is taught as part of their program - to make final corrections to closed captioning that remains after automated processing

   d. utilize currently -owned specialized software for web design, for proper rendering and parsing of video and displayed data

2. time savings and quality

   a. instructors are encouraged to replace older, lower-quality video with those containing updated content and recorded in high definition, prior to adding closed captioning in situations where time is available.

Supportive elements include:

1. maintain access to external vendors for fast processing for time-constrained needs; and

2. continue to utilize automated processing followed by human processing.

Generic vulnerabilities of the practice. Budgets may be a limiting factor if external vendors must be used due to short turn-around times for adding closed captioning. Timely and regular access for human processing may also reduce an institution's ability to adapt self-created media for accessibility. Both items rely on continuing access to course-based technology fees which, if interrupted or reduced, could create insufficient revenue.

Support staff needed for training and technical assistance.

Description of the problem or opportunity to which the practice is addressed. The Instructional Technology Department staff need to be technically skilled and knowledgeable. To keep their skills sets and knowledge base current, exposure to new and emerging software and technology is required. Paid training is too expensive to rely on as an exclusive, or semi-exclusive, standard option. A different approach to gaining access to new and emerging technologies needed to be created.

Generic description of the practice. The Director of the Instructional Technology Department has taken an entrepreneurial approach. Opportunities within PCC and other institutions were sought out that would allow exposure to new and emerging technologies.

Where the practice draws its strength. The value-compounding aspect of this approach resulted when the Instructional Technology Department staff took over writing and designing bid specifications for technology upgrade and installation for the institution's electronic and distance classrooms. This also provided opportunity for tech staff to have ongoing access through maintenance of those installations, resulting in opportunities to keep their skills current. Secondly, hiring out tech staff to other institutions allowed exposure to technology software and hardware not used at PCC.

Essential elements of where the practice draws its strength include:

1. leveraging skills and knowledge by hiring out services to other institutions resulting in generating income to the department, while taking advantage of times of low local demand

2. conservation of funds

   a. through service provided to other institutions, technicians remain proficient and experienced while potentially gaining experience with technology not utilized by their home institution

   b. experienced and knowledgeable tech staff significantly reduces the need to hire outside vendors

   c. with sufficient experience, knowledge, and exposure to new technology, technicians have the opportunity to gain industry certification.

Supportive elements:

1. standardization of technology and electronic classrooms at PCC can lead to instructional efficiency through standard operation of all electronic classrooms;

2. leveraging efficiency - having staff with both technical expertise and knowledge aided in the development of bid specifications for technical installations that resulted in reduced installation and operational problems;

3. acquiring industry certification of technical staff.

Generic vulnerabilities of the practice. Two vulnerabilities were identified. First, if sufficient experience is not gained through work for the home institution combined with that from external institutions, sending staff for training may still be required and expenses will be incurred. Second, preservation of high standards and quality work is critical to ensure customer satisfaction.

Inductive analysis. To more completely understand institutional influences on smart practices a broader view was taken. Deductive analysis resulted in identification of "what" the smart practices were, from an organizational level the inductive analysis resulted in identification of "how" "value on the cheap" (Bardach, n.d., p. 6) was gained at PCC.

From that perspective, an understanding of potential organizational influences on smart practice were be gained. Information captured through the formal interview was augmented by general information about the institution captured from institutional documents and through conversation with the interviewee occurring outside the context of the formal interview process. This material, along with data collected on the identified

smart practices provided the researcher opportunity to better understand how those smart practices were influenced by institutional operation.

By looking across the four smart practices to how they operate within the larger confines of PCC provided a different perspective than that of analyzing each smart practice in isolation. While not as extensively detailed as the deductive analysis, the researcher felt there was sufficient data that will add to the understanding of how smart practices function within a higher education institution. A deeper understanding of commonalities of smart practices may also assist a target institution's leadership to better understand how a particular smart practice may be implemented locally.

To identify themes, the researcher first reread the sections of the interview transcripts corresponding to the four identified smart practices. Important passages of text were assigned a code word or phrase to describe the passage. The descriptive codes and phrases were then pattern coded. The resulting groups were then considered and reflected upon by the researcher until a reasonable basis for the final consolidation was determined. Some practices are identified in both categories and in multiple themes.

This approach yielded five themes: (a) adaptation; (b) collaboration; (c) creativity; (d) technology leveraging; and (e) budget. The five themes were consolidated two categories: (a) operations influenced by in culture; and (b) values influenced by culture.

These themes provide a better understanding of institutional influences on smart practice as they exist at PCC. No inference of importance, sensitivity or criticality to PCC is implied based on order of presentation. The five themes along with a brief description are listed below.

Operations influenced by culture

1. Adaptation – functional results of the institution as a whole and/or as subunits by realized through adaptation

2. Collaboration – functional results from employees that worked across personal, professional, departmental and institutional boundaries

3. Creativity – functional results of employees creating new and novel solutions

Values influenced by culture

1. Budget – conservation of funds realized through fuller or full utilization of an asset

2. Technology leveraging – results of full or fuller use of technology to supplement or supplant human activity

Category: Operations influenced by culture.

Theme: Adaptation. Cultural adaptation reflects personal and institutional values, philosophies and openness to consider alternative options. From the perspective of smart practices, it is best conceptualized as trying to return more value from investment in a project and/or institution. Three operational adaptations were identified: (a) access to student services; (b) Quality Matters®; and (c) standardized records.

Access to student services. Responding to the need of the institution to provide equivalent services to online and other distance students, administrators chose to expand hours of operation for student advising and financial aid. Student Services lacked the funding to meet the directive. It was through cooperation of Student Services and the

Instructional Technology Department, that the Instructional Technology Department chose to budget $10,000 annually to Student Services to cover staff overtime costs to deliver services beyond the normal hours of operation. Through adaptation of budget the requirement to deliver additional hours for advising and financial aid was accomplished.

Funding from the Instructional Technology Department assisted in partially solving the problem. Lack of afterhours tutoring services was further augmented by utilizing contracted tutoring services for the online student. Sufficient autonomy and authority existed at the department level to hire these services, thus shortening the time between need and supply of product or service.

Quality Matters®. In 2009 PCC's administrators selected Quality Matters® as the product to utilize for development of online courses and programs. From the administrative point of view, it was the logical selection since there existed a group of instructors already informally using the processes and guidelines from the Quality Matters® processes. During the planning for wider implementation of Quality Matters®, instructors were described by Dr. Online as being inclusive, thorough and thoughtful (personal communication, June 20, 2016) in adaptation of their courses for online delivery. As Quality Matters® processes became fully entrenched, certain but varying components of Quality Matters® processes were being implemented by instructors into blended and non-online courses.

An unexpected result of implementing Quality Matters®, specifically the Quality Matters® rubric, was its informal adoption as PCC's online course evaluation instrument. The Quality Matters® rubric provided a means to both develop and then evaluate an

online course. Faculty would take their administrator into their online course so the administrator could see how the faculty member would interact with students in an actual class.

Standardized records. PCC is a member of the State College System. While the consolidation of individual colleges was legislatively started in 1993, a fully integrated and standardized records system had not been implemented. In 2014 representatives from individual colleges within the State College System were brought together to assist with the redesign knowing that changes would affect the overall system. PCC chose to identify representatives to serve on this statewide committee. PCC knowing that adaptation to the new records system would be necessary, they also knew that the process of adaptation would be easier by having a representative voice in the design phase. Having representation is felt to create value through saving of staff time as the new system is implemented.

Theme: Collaboration. Collaboration can be described as a staple within PCC. Collaboration was most commonly found between departments or divisions of the college. As detailed in the theme of adaptation sharing of budgets also serves an example of interdepartmental collaboration. Three examples of collaboration were identified: (a) learning management system; (b) TRIO; and (c) state college system.

Learning management system. The most significant collaborative effort identified was financial support provided by the Instructional Technology Department for the college's learning management software. Funding provided by the Instructional

Technology Department, through utilization of technology fees assessed to online

courses, underwrites the college's portion of the learning management software.

Originally only online courses utilized the learning management software. Since

that time virtually all courses regardless of delivery format, online, classroom,

telecommunication, utilize the learning management software. Dr. Online believes that

underwriting the cost provides good return on investment from the perspective that the

online and campus-based student is being served, and secondly that the investment may

potentially have a positive influence on the student that results in future enrollment.

TRIO. Inter-departmental collaboration was identified in the videoconferencing

project TRIO is spearheading. PCC's TRIO grant is providing input on their

videoconferencing needs as well as being the source of funding. The Instructional

Technology Department is providing technical expertise to construct the project in an

efficient manner. When the TRIO videoconferencing project is completed, it will be

replicated to serve additional needs of connectivity for online and distance students

attending PCC.

State college system. Two instances of collaboration occurring at the state level

were identified. The first pertained to licensing of the learning management software that

is contracted for at the state level by the State College System. This effort can be

considered as collaborative in that the State College System gathers input from its

member institution as part of the decision-making process. Having opportunity for input

on specific components of functionality required of the learning management software

reduced the overall cost of the learning management software. Additional value was gained by leveraging of quantity pricing that is billed back to the member institutions.

The second instance, design of the State College System records software redesign was earlier described under the theme adaptation as a separate component of the overall process. Here, collaboration is the focus. Member colleges of the State College System are collaborating to create common processes for member institutions concurrent to development of the new statewide records system. By standardizing processes, value through efficiency and reduced time spend correcting errors in the records will be gained.

Theme: Creativity. As the study interview was with Dr. Online, the Director of the Instructional Technology Department, creativity within the department was able to be explored in depth. Dr. Online, through action and ideology, shapes the operational philosophy of the department. Four areas of creativity were identified: (a) entrepreneurialism; (b) technology training; (c) TRIO; and (d) service provider.

Entrepreneurialism. Dr. Online's self-described entrepreneurial orientation is borne out through multiple departmental examples identified by the researcher. The need for the Instructional Technology Department to be entrepreneurial is based in the fact the department is required to be self-funded. The main source of funding is generated through technology fees assessed to online courses. Therefore, it is in the best interest of the department to create a variety of value-extracting and value-compounding functions to enhance the departments' operational efficiency. Dr. Online's entrepreneurial orientation in itself appears to add value for PCC.

Entrepreneurship at some level rests on tolerance for risk. Problems encountered within the department cannot always be solved with existing solutions, which at times themselves had been worked out through trial and error. The department staff, as well as the Dr. Online, are observant, highly skilled, and take advantage of learning from the experiences, and errors, of others. These approaches add value even though they are based more in a philosophy than resulting in a material thing.

Technology training. The Instructional Technology Department is responsible for technical training of instructors. Demand for technical training for instructors is supplemented through a creative means. Being self-funded, the Instructional Technology Department has greater autonomy to selectively fund project ideas brought to them by faculty. Commonly, funding is for technology-based hardware or software. The item is provided to the faculty member to pilot in exchange for the faculty member training her or his peers on the particular item. By requiring this as part of the exchange Dr. Online is able to leverage departmental expenditures in exchange for training sessions that extend departmental training capacity. Both time savings and direct cost of departmental staff is supplemented.

TRIO. A creative-theme component of the TRIO project described earlier, is the replication of the videoconferencing project for benefit of the online and distance students. Beginning where the TRIO project ended, the Instructional Technology Department plans to further enhance the videoconferencing capabilities by adapting it for use on personal devices to deliver college services to online and distance students.

Service provider. Instructional Technology Departmental staff look for opportunities to provide services more efficiently, effectively and with quality to minimize recalls. A benefit of this approach to service resulted in utilizing tech staff time during times of low local demand to hire out to other institutions. The ability to do so rests upon the staff's currency of knowledge and skills with existing and emerging technological hardware and with software solutions being implemented in online and distance education delivery of courses.

Subletting of staff not only generates an income stream for the department, but also offers exposure to new and emerging technologies that staff members may not gain at PCC. Contracting out technical support staff to other institutions becomes a self-renewing enterprise where exposure to new technology results in new skills and knowledge that can in turn be put to use locally and as tech staff are hired out in the future. Regular exposure to new technology also permits tech staff to be better prepared for industry testing that has resulted in earning industry certifications. These industry certifications further enhance additional opportunities for generating departmental income and training.

The last item in this theme, and possibly the most value laden, was to take advantage of the experienced and knowledgeable tech staff in the Instructional Technology Department for use in bid preparation. This resulted in the Instructional Technology Department becoming highly involved with bid preparation, technical design, and installation of PCC's electronic classrooms.

As a public institution, awarding contracts to the "low bid" remains a standard policy. Because the Instructional Technology Department staff has developed the expertise to design electronic classrooms, PCC has been able to standardize technical specifications for upgrades to existing electronic classrooms, as well as for the bid process for new installations.

Keeping technology current in the electronic classrooms creates opportunity for instruction to occur with a higher level of student engagement for both local and online students. Standardization of technology and operation of the electronic classroom benefit not only the tech staff who service them, but also the instructors who utilize them. Electronic classrooms that operate in an identical manner is felt to reduce the faculty's level of stress as many utilize several different electronic classrooms throughout a term.

Category: Values influenced by culture.

Theme: Technology leveraging. Use of technology leveraging benefited students for us in mapping course competencies with currently-owned learning management software. As competency-based courses and programs have been developed, competency-mapping has resulted in an improved logical ordering of curricular content and skill-building for the student. Utilizing the learning management software as a tool has benefited instructors through time savings and deriving value by utilizing currently-owned software.

Mapping of competencies as specifically utilized for the mastery-based certificate of Business online program may also provide benefit for the online and local students. Students have the opportunity to move through the series of courses to complete the

program in a more self-directed manner; advancing at their own pace as mastery of competencies are achieved. An additional value component may result from the student self-pacing. The student may complete the certificate program in a more time-efficient manner possibly reducing their overall cost to attain the certificate. Three areas of value gained aligned with technology leveraging: (a) TRIO; (b) state college system; and (c) access and universal design.

TRIO. The TRIO videoconferencing gains inclusion in this theme due to planned future adaptation through leveraging technology. Specific to future application for TRIO is experimentation with remotely controlled devices to which the camera will be mounted to allow tilting and panning. It is postulated that addition of movement will lessen the perceived communication-distance between individuals that participate in the videoconference.

State college system. The State College System records software redesign describe earlier also earns recognition in this theme. When completed, the redesigned software will integrate records subroutines to as full a capacity as possible. This will leverage the software to fully integrate records at the state level to drastically reduce, if not eliminate errors in student records. Records integration is felt to have high probability to increase the quality of service delivered to the student by any member institution of the State College System. As students are both increasingly mobile and potentially co-enrolled at multiple institutions, the common records system adds efficiency for the student as well as for member institutions.

Access and universal design. Of all the applications of technology leveraging identified, the most significant is its use in meeting federally required compliance for accessible electronic distribution of courses, electronic media and college services. This requirement is commonly known as access and universal design. Through a combination of utilizing currently owned software, and contracting out for services only when needed, value is added for the institution through multiple uses of its existing software.

PCC utilizes subroutines that exist in currently-owned software to work toward meeting required accessibility and universal design standards. With a greater amount of material being made available online, students need to be able to access and use the material with minimal effort. PCC works toward meeting these requirements through software processes that convert speech-to-text, text-to-speech, and to display web-based media in its courses and from the college website accurately on personal electronic devices.

Influenced by the overall growth of personal electronic devices, students appear to have come to expect more immediate support for both their electronic devices used for educational purposes, and for courses taken through electronic means. This in itself provides a point of leverage for PCC. By meeting federal requirements, there also exists opportunity to enhance connection to the student in a more seamless fashion by electronically reducing the communication distance of the college and the student. By doing so it is felt there is a higher probability the student will remain enrolled at the institution for the entirety of their degree.

Theme: Budget. Budget was the simplest theme to be identified and explored. By social design monetary dealings are given interpretations of implicit value, and are therefore easily measureable for the value-compounding effect. In the realm of smart practice, budget was the basis for measuring value returned, as well as, to identify value of funds conserved. Budgets were a means of leveraging value in all instances except marketing. Four areas were identified: (a) marketing; (b) learning management system; (c) quality management; and (d) access and universal design.

Marketing. To dispense with the exception first, marketing was specifically referenced as expending funds. The situation described was one that is connected back to the theme creativity. In promoting online courses to new markets of online students, initial funding came from the Instructional Technology Department as a means described as "priming the pump" (Dr. Online, personnel communication, June 20, 2016). When return on the investment could be demonstrated to PCC's marketing department, the marketing department would take over the cost and continue the marketing.

The benefit of marketing created secondary value. Although the investment in marketing online courses and programs was a direct exchange of money-for-goods and services received, the Instructional Technology Department also stood to gain through a secondary route. As mentioned earlier, the Instructional Technology Department is funded through course technology fees. By investing in marketing, not only was enrollment felt to benefit, but any additional online course technology fees generated returned to the Instructional Technology Department's coffers.

Learning management system. Learning management system appears here in addition to being included in the earlier themes of collaboration, and technology leveraging.

Deriving additional benefit through budgeting existed by utilizing already-made investments in new ways. Such was the case for use of the learning management software in competency-mapping of the online certificate of business mastery-based courses and program. The learning management software was already a sunk expense. Using it for a purpose secondary to its primary purpose resulted in gaining value from the investment.

Use of the existing learning management software was also used to supplant printed materials being distributed to students. The online student benefited through immediate access to the course documents whenever needed. For the instructor with on-campus students, course materials stored in the learning management software eliminated the need for instructor or student to reprint documents which resulted direct budget savings through reduced printing. Instructor time was also saved providing a second added value.

Quality management. Utilizing an already invested-in product was the case with Quality Matters®. Cost was incurred in training instructors on the Quality Matters® processes through stipends paid to the instructors for course development, as well as for the cost of the final Quality Matters® course certification. The direct return on these prior investments are represented through better instruction and better course experiences for the student.

Based on an informal study, Dr. Online indicated there has been an increase in retention of online students in Quality Matters® certified courses. Anecdotal evidence indicates that students have had a better course experience in Quality Matters® certified courses, and are believed to have a preference for them when registering for future terms (Dr. Online, personal communication, June 20, 2016).

Access and universal design. While being reported under the theme of technology leveraging, the college process for adding closed captioning to its extensive library of faculty course videos takes advantage technology leveraging. An informal decision tree is used to determine how captioning is added. The decision is driven by time-factor. Specifically, that measure of time is from when a student known to need closed captioned videos registers for a class and the actual starting date of the class. A short window of opportunity results in outsourcing the project, a longer window results in internal processing.

Having a two-pronged approach allows for judicious use of budget. Leveraging of technology was specifically utilized when a longer window of opportunity is available. This leveraging utilized externally available free services to do first-pass captioning after which second-pass processing utilized students in one of PCC's campus-based programs that included transcription training. Students in transcription classes are hired to complete the second-and-final step in the process of adding closed captioning.

In situations where a longer window of opportunity existed, and stemming from the intensive nature of adding closed captioning, faculty were encouraged to update their videos with current content and examples. If faculty are amenable to doing so, the videos

are recorded in high definition to further enhance the overall quality of the course prior to adding closed captioning.

Closely coupled to the addition of closed captioning, PCC gains value from currently-owned software to parse and render text and images, respectively, so both display properly on a student's mobile devices. As identified earlier, any additional use of a currently-owned asset is considered by PCC to represent value gained.

Summary. As themes emerged in this study, it became apparent that there exists considerable overlap of themes found in individual smart practice. All themes represent significant findings when looking across the four identified smart practices. It is highly significant that "culture" is tied to both categories of themes, and is also the most variable component that may influence the perceived value gained resulting from a smart practice at target institution.

An exploration of higher education to identify smart practice using Bardach's (2004) conceptual basis has revealed practices that may be applicable to other postsecondary institutions facing similar administrative challenges for their online courses and programs. It is important to note that the underlying and basic concept of smart practice resides in finding interesting ideas then evaluating those ideas for value added benefits.

Chapter 5

Discussion and Summary

The idea for this study resulted from questions about resolution of administrative challenges encountered in online courses and programs (El-Mansour, 2011; Patterson-Lorenzetti, 2011). The annual Instructional Technology Council Distance Learning Survey provides a ranking of the top administrative challenges of online programs. Unfortunately, the report does not identify potential solutions. There are a limited number of research studies that have identified successful solutions to such challenges, yet no formal method of characterizing those solutions were presented in those findings (Abel, 2005; Baghdadi, 2011; Lokken & Mullins, 2015; Lyons & Burnstad, 2007; Newman, 2003; Shelton & Saltsman 2006).

A method of identifying and extrapolating value-added solutions in public administration is used as a conceptual basis for this study. This method is based on Eugene Bardach's (2004) earlier research of identifying and extrapolating smart practices. As community colleges also reside in the public realm, the researcher felt there was applicability of Bardach's (2004) method in higher education.

Bardach's (2004) concept of smart practice emerged from efforts to identify best practices. The significant difference of best practice and smart practice is that a smart practice can be anything that aims to exploit or "take advantage of some latent opportunity for creating value on the cheap" (Bardach, n.d., p. 6). Ongaro (2009) defined smart practice as a "practice conceived as a means to exploit opportunities" (p. 6).

The central question of this study was "What smart practices exist to address the challenges facing a distance education administrator in developing, implementing, and/or sustaining effective online programs leading to associate degrees or sub-associate credentials?" To assist in answering the central question, two subsets of questions were explored. Responses to the first subset of questions were included in the online questionnaire (Appendix A) and provided the basis for selecting the single institution to be the case for this dissertation study. The second subset of questions were specific to Bardach's (2004) method of identifying and extrapolating smart practices. Responses to the second subset were captured during the interview of Dr. Online.

Dr. Online, PCC's administrator in charge of online courses and programs, served as the primary information resource for Bardach's (2004) framework in examining each of the 14 Instructional Technology Council's administrative challenges to online programs identified in the 2015 annual survey (Instructional Technology Council, 2016). Through interview and follow-up emails, Dr. Online described each challenge as experienced at PCC. Additional data sources used in examining this case included institutional planning documents, researcher field notes and memos.

The remainder of this chapter includes a brief introduction to organizational culture, an unexpected but significant finding of this study that has impact on smart practice. A summary of the deductive analysis is presented followed by themes that emerged from the inductive analysis. Where the deductive analysis focused on exploring individual smart practices, the inductive analysis looked across the identified smart

practices exploring them as a whole. Chapter Five concludes with suggestions for practice and future research.

Organizational Culture

Before going into a specific discussion of smart practices a brief introduction into the unexpected finding organizational culture is necessary. There are two reasons for this. First, this was an unexpected finding that has considerable influence whether or not an institutional practice advances to being a smart practice. Second, and also due to the unexpected nature, no review of organizational culture was included in the literature review.

Literature broadly supports the idea that organizational culture exists, be it in business or higher education. These organizations have their own personalities and that personality shapes the behavior of the organization (Raileanu & Botica, 2011; Watkins, 2013).

One approach taken to understanding organizational culture is to look at how change happens in an organization. Research has shown that within higher education institutional culture there are five core change strategies: (a) senior administrative support; (b) collaborative leadership; (c) robust design (vision); (d) staff development; and (e) visible actions (Kezar & Eckel, 2002).

A different perspective is provided by Smart and St. John (1996) in their study of "culture type" and "strong culture" using a sample of four-year institutions. The purpose of their study was to determine whether the two culture types operate in an independent or conditionally related manner.

Culture type as described by Smart and St. John (1996), is considered more an established mode of governance or exchange. An easily recognized exchange of this form is work for wages where institutional members understand their role and what the exchange entailed (Smart & St. John, 1996). Strong culture is associated with organizational excellence where "beliefs and values central to an organization must be closely aligned with actual policies and practices if the management system is to obtain a high degree of integration and coordination" (Dennison, 1990 as cited in Smart & St. John, 1996, p. 220))

This very limited background on organizational culture is meant to provide a basic idea of organizational culture to deepen the results of this study of smart practice for the reader. Smart practices are highly influenced by the organizational culture and structure. Having a very basic understanding of how an institution understands its mission and interprets its goals, the functional culture it operates within, and how employees at all levels may interpret these provide a means to pique the intellect when considering their individual or combined influence on identified smart practice.

At PCC the influence of culture was identified in all four smart practices. PCC utilizes sets of policies and procedures for functional and organizational purposes. Cultural components that were identified are more a function of philosophy, art and craft that stemmed from executive leadership and appear to be widely accepted.

Examples of these cultural components include comfort with change, professionalism, building relationships of trust, and learning from mistakes of others. Individually none of these will directly return a specifically identifiable value in the sense

of direct economic returns or times savings; however, they represent the cultural

foundation upon which the value aspect of a smart practice is qualified.

Critical to the results of this study was the recognition that organizational culture

created the interpretation of value which the value produced by a smart practice was

measured.

Deductive Analysis Summaries

In this study four smart practices were identified at PCC that the institution

considered affiliated with four of the Instructional Technology Council's administrative

challenges to online programs. These four Instructional Technology Council categories

of challenge were: (a)adequate student services for eLearning students; (b) adequate

assessment of eLearning classes; (c) accessibility and universal design; and (d) support

staff needed for training and technical assistance. The full list of Instructional

Technology Council administrative challenges as ranked and categorized by PCC is

found Appendix H.

Dr. Online was asked to rank the 14 Instructional Technology Council

administrative challenges from 1 being the greatest administrative challenge to 14 being

the least administrative challenge. Smart practices were identified in administrative

challenges ranked by Dr. Online as first, second, fifth and ninth. There appeared to be no

relationship between the level of challenge and identification of smart practice. The same

result also appears to be true when comparing the institutional challenge category, as

identified by Dr. Online, with the presence of a smart practice. Of the four identified

smart practices, two were categorized as "current – critical", one as "current", and one as "resolved".

There seems to be a greater influence on smart practice identification related to values identified as important when viewed through PCC's organizational – cultural lens. While study of values was outside the scope of this study, there were sufficient sources of data (Dr. Online, personal communication, June 20, 2016; Plains Community College n.d.a; n.d.b; 2015a; 2015b) to conclude that certain general values deemed important to the institution were also found related to smart practices identified.

Practices that qualified as a smart practice were not always the reason for the practices' existence. For example, the TRIO videoconferencing project was undertaken to provide better service to TRIO students. The successful end result of the project, a better means to connect with students on the other PCC campuses, is planned for future use to provide college services to online and other distance students. The practice's identification as a smart practice resides in the fact that through collaboration and innovation value-compounding components e.g. time savings, no replication of research and development resulted.

Results of the smart practices were not synonymous with the reason the practice existed. The reason for the practices' existence resided in the administrative challenge to be solved (Levy, 2003). Rather the qualifier for identifying the smart practice gaining "value on the cheap" (Bardach, n.d., p. 6) was related, philosophically, to how PCC institutionally perceived "value" as well as recognition of the approach used to gain value.

PCC directly values (Plains Community College n.d.a; n.d.c; 2012; 2015a) supporting students, results from interdepartmental collaboration, efficiency in use of budget, and utilization of technology (Beaudoin, 2003). Whereas, relative to PCC's organizational culture, the institution values adaptation, collaboration, and creativity. It should be noted that innovation was an attribute identified in each of these three categories.

Inductive Analysis Summaries

To gain additional insight the researcher looked across the four smart practices to identify common themes. Themes reflect cultural, organizational, functional factors. At PCC these factors influence how the smart practice created value, the amount of value created, and the institutional perception of value (Kezer & Eckel, 2002; Smart & St. John, 1996). Attempting to quantify value of a smart practice was outside the scope of this study. The researcher cannot generalize ways in which these items would have similar or different direct and/or perceived value at other institutions. However, it is highly probable target institutions will be influenced by functional, cultural, organizational, and/or other factors not identified here in determining the value of a smart practice.

Of continuing note, strengths and values derived from smart practices cannot be generalized. Each institution's definition of value can differ, as can the level of importance an institution. Organizational culture can have a significant impact on smart practices and value produced. According to Schein (1996, 2010), an organization's culture needs to be observed more than measured to better understand how it functions, with one of those functions being how and what the institution values.

Adaptation. Adaptation of practices and/or processes rather than resistance was common to the described response of PCC employees. This aligned with components of cultural identity as described by Smart and St. John (1996). The areas of significance felt to be importance to PCC that helped to override resistance were: (a) meeting student needs (Abel, 2005); (b) efficient use of budget; and (c) application of good teaching practices in online courses (Moore, 2009).

The organizational culture appeared to influence the method used to adapt to change (Smart & St. John, 1996), as well as, provide a basis for the interpretation of value resulting from the change. These approaches to valuing identified at PCC included: (a) utility of collaboration; (b) autonomy in decision making (Patterson-Lorenzetti, 2011); (c) logic; (d) influencing external processes.

Two perspectives, valuing results and philosophical values, commingle within the identified smart practices. It is interesting to note that no mention of resistance to making an adaptation was found in any of the data sources.

Collaboration.

It was stated that PCC places a high value on taking calculated risks, being collaborative, supportive and innovative (Dr. Online, personal communication, June 20, 2016). Collaboration can add value to overall institutional processes, potential refinement of processes, and of shared ideas. However, the amount of value placed on these are directly affected by the organizational culture of PCC.

Two examples of collaboration identified involved a single department providing funding for college-wide benefit. First was contribution of funds to support overtime pay

for after-hours staffing to provide financial aid and advising services to online and other distance students. The second example was funding for the learning management system originally used only in online courses but now is used in virtually all courses regardless of mode of delivery.

The point of emphasis the preceding examples is that funding (Adams, 2003) was provided by a department that received no general college funding. All departmental expenses were supported through assessment of technology fees to only online students.

This particular approach to funding may leave an important component of overall collaboration unidentified. A single self-funded department providing annual budget allocations to support afterhours delivery of student services, and in supporting software utilized throughout the institution may be an uncommon occurrence. If this is true, there may be an unidentified value tied to organization culture that supports what could be considered an altruistic approach within an identified smart practice and deserving of further investigation.

In addition to the internal examples of collaboration, two additional were identified tied to external institutional challenges. Both involved the State College System and both yielded value in secondary manners. The first, dealt with member institutions, not just PCC, of the State College System providing input on the redesign of the State College System records software. By providing input at the design stage PCC felt that would reduce the cost of conversion and integration with the new records system when it was implemented.

The second external example was similar in principle. Member colleges provided input to the State College System regarding functional needs of the learning management software. The value gained came through the functionality PCC needed in the learning management software in addition to a lower cost per unit resulting from a higher quantity bid (Adams, 2003).

Creativity.

Creativity was found exclusively related to activities affiliated with the Instructional Technology Department. There is insufficient evidence to identify the specific reason for this. However, several plausible explanations exist. First, Dr. Online is a self-described entrepreneur. Second, the Instructional Technology Department is self-funded. Third, the bulk of the data in this exploration was based on the interview and resulting interview transcript of Dr. Online.

What can be stated with accuracy is that value gained in several of the identified smart practices did involve solutions where the Instructional Technology Department was integral to the creating the solution. Each of the four smart practice solutions did utilize existing software, hardware, or budget (Batts, Pagliari, Mallett, & McFadden, 2010). Making fuller or full use of software by utilizing it more complete through subroutines or simply through wider use was identified (Adams, 2003).

The leading example of creativity used in an identified smart practice was that of tech staff being hired out. It represented a unique use of complimentary attributes affiliated with the tech staff. Utilization of time of low demand to hire out which created functional returns in the form of revenue.

The external jobs have also provided opportunities for overtime that is paid for by the other institutions. We've had instances where grant funds were paying for the work, and because it was budgeted for a vendor doing the work, they were able to have my staff put in 12-hour days to get the work done more quickly, which still cost less than what a vendor would charge. This allowed my staff to make a lot of extra money for the OT, but it didn't affect my budget, because all of that, including FICA and retirement, was being paid by the other institution (Dr. Online, personal communication, June 20, 2016).

The second value added component in this example came in the form of knowledge and expertise the tech staff (Abel, 2005; Batts, Pagliari, Mallett, & McFadden, 2010) gained that was both resold in future hire-out situations, but more importantly for PCC, knowledge that eliminated or reduced budget expense related to upgraded and new electronic classrooms.

Technology leveraging.

Technology leveraging is closely connected to creativity due to the Instructional Technology Department being highly associated with both. Technology leveraging was the functional component that yielded value, a component by which the smart practices were judged. Those instances revolved around utilizing software more fully through its subroutines and/or putting the software to use more broadly.

Secondary benefit was returned to students, staff, and institution alike through higher functionality and/or utility. Those results from added functionality included reduction in budget, reduction in processing errors, ease of access for students to their course materials, creation of a more engaging learning environment, and creation of a less-stressful teaching environment for the faculty member.

Functionality also accounted for the value component resulting from the TRIO videoconferencing project. In addition to only software being leveraged, remotely controlled hardware was utilized in the project. The movement of the camera added to the degree of interactivity the TRIO staff had with the participant at the remote location (El-Mansour, 2011; Moore & Kearsley, 1996; Valentine, 2002;).

Budget.

The theme Budget is comprised of items that have directly or indirectly created additional value for PCC. PCC also values budget through the measure of budget-conserved. Creation of value as return on investment, was identified through marketing of QM certified online courses and programs to recruit students outside the normal service area of PCC.

As conservation of budget and simple stretching budget (Moore, 2011), PCC places value on conserving time, travel and other similar activities that results in increased employee productivity. Culturally PCC perceives that value can be gained by supplanting human time, or other activities, with technology to perform the same function e.g. saving drive-time by using videoconference for a meeting (Inman, Kerwin & Mayes, 1999).

Budget was the major comparator to determine if the practice contained a value-adding component, thereby making it a smart practice. Functional productivity by gaining value from expenditures already made was the leverage by which the value was gained.

Vulnerability Exposed: Compliance with new Financial Aid Attendance Requirements

As part of the information provided by Dr. Online through the member check, the researcher was made aware of decisions at PCC that caused a candidate smart practice to be removed from this study. Initially, competency based education had been identified as a smart practice because mastery of competency offered an alternate method of financial aid compliance. In this study it was identified as such due to PCC applying to the Higher Learning Commission to offer competency based education programs Plains Community College, n.d.c). If that application had been continued, and successful, attendance in competency based education programs would have been measured through mastery of competencies rather than traditional in-classroom attendance.

PCC has withdrawn its application to offer competency based education. As the initial process moved forward, it was discovered, that the tracking required for students in non-term programs is not compatible with the Enterprise Resource Planning software PCC utilizes for its records management. Attempting to do a force-fit would have required creation of a manual tracking process that was judged unfeasible.

As an alternative PCC has opted to incorporate elements of mastery-based learning into the courses required for the certificate of Business. No changes were made to the lineup of courses, the same eight courses totaling 22 credit hours are still required. Although the courses are mastery-based, critically, it is unknown if this new approach will offer an alternate method for complying with financial aid reporting. Until that is known, it cannot be identified as a smart practice as no value-added component exists.

This is a prime example of smart practice vulnerability. Even though considerable thought and planning had been done prior to starting the Higher Learning Commission application process, not always are all potential complications identified. PCC administration considers mastery-based learning a method to continue to pursue for the benefit of students. Persistence and innovation have allowed an alternate path to be identified albeit without an alternate for financial aid compliance.

Specific to this study there are two impacts. First, this change resulted in identification of four rather than five smart practices. Second, the theme of student retention was based principally on the smart practice that was eliminated. After this reeducation five themes remain.

Recommendations for Practice

This study sought to explore smart practices used by the administrator at a single IPEDS Plains region institution to solve administrative challenges experienced in the institutions online courses and degree programs. PCC was selected because of the extent of their online programs. Nineteen credentials are offered through PCC, making this institution a valid case study. The significant number of online courses combined with substantial online enrollment in their online programs provided a data-rich opportunity to explore for smart practices.

The Instructional Technology Council's 2015 Distance Education Survey (2016) list of 14 categories of challenge for online administrators provided the basis for these explorations. Bardach's (2004) method to identify and extrapolate smart practices was applied to data collected from the study institution.

Four smart practices were identified in this study. As with any qualitative study, caution should be placed on drawing generalizations beyond the case studied. The concept of best practice appears to be a starting point in searching for smart practice. Applying Bardach's (2004) method provided a process to explore the practice in greater depth to determine if it produces some form of "value on the cheap" (Bardach, n.d., p. 6).

Although Bardach's (2004) method results in smart practices that can be taken from a source institution and applied at a target institution, from the perspective of this researcher, there are additional questions institutions should consider prior to implementing a smart practice identified in this, or any other study. These include: (a) what challenge are they trying to resolve; (b) is the value identified in the smart practice the value they are trying to derive; (c) is the organizational culture of the institution one that can support the ability to implement the smart practice; or (d) is the smart practice being considered without investigating the institutions' true need because it represents the "next cool thing".

For PCC, the organizational culture of the institution played a major role in the identification of smart. Thus, the organizational culture of institutions considering the adoption of smart practices should understand the impact of perception of value for their institution. Importantly, consideration of organizational culture is never stated by Bardach. This lack of recognition may result from the fact that the culture of organizations involved with public administration might not allow for the impact of organizational culture as exists in the realm of higher education.

In general, organizational culture is how a group solves its problems then learns from that experience. A more detailed description is provided by Schein (1990):

> Once a group has learned to hold common assumptions, the resulting automatic patterns of perceiving, thinking, feeling, and behaving provide meaning, stability, and comfort; the anxiety that results from the inability to understand or predict events happening around the group is reduced by the shared learning. The strength and tenacity of culture derive, in part, from this anxiety reduction function. (p. 111)

Every organization's culture is unique. At PCC that uniqueness included: (a) willingness to improve; (b) personal preference and interest in moving the institution forward; (c) collegial atmosphere; (d) willingness to support others; (e) willingness and openness to change and adaptation; (f) individual and group desire to influence college organizational structure; and (g) attitude of forward-thinking.

Organizational culture provides the mental perspective for interpretation of standard operations. At PCC organizational culture is modeled by the college's executive leadership who set and exemplify the institution's leadership style and cultural standards. Ideologies including comfort with change, professionalism, building relationships of trust, and learning from mistakes of others help to create a psychological support structure for employees to take risks and innovate. In essence, the organizational culture at PCC could be considered a smart practice in itself where the institution's model of leadership is the leverage from which other smart practices benefit.

Recommendations for Future Research

This study's results provided insight into smart practices for administrators of online programs. As the number of online courses and degree programs continue to

grow, likely will associated challenges. This study utilized a single institution that was not part of a consortium to explore application of Bardach's (2004) method of identifying and extrapolation of smart practices.

The Instructional Technology Department at PCC is a self-funded department and receives no funds through the institution's general budget. It is not known what impact the requirement of self-funding may or may not have had on practices that were identified as smart practices in this study. Study should be undertaken to determine the significance of such an impact on smart practice.

Smart practice should be explored using multi-institution consortiums that offer online courses and degree programs to determine values derived. A last recommendation would be a study that focused on identifying smart practices of hybrid/blended course and degree programs where the student is not completely at-distance from the institution.

Future studies to identify institutional smart practices should be expanded to include all institutional practices. Exploration through this broadened perspective should consist of a larger group of institutions or categories of like institutions to provide a better understanding of functioning of smart practices and of values derived.

Summary

Bardach's (2004) method of identifying and extrapolating smart practices in public administration appears to have positive application for higher education institutions. In addition to using Bardach's (2004) method to evaluate practices at peer institutions, there may be value in utilizing the method for institutions to examine their own practices to identify smart practices.

In this study Bardach's (2004) method was used to identify solutions to administrative challenges that arose from an institution's online education programming. Through exploration of practices at PCC, four smart practices were identified and extrapolated. In priority order from highest to lowest for PCC those included: (a) adequate student services for eLearning students; (b) adequate assessment of eLearning classes; (c) addressing accessibility and universal design; and (d) support staff needed for training and technical assistance.

Also of significance were the themes identified as those provided necessary understanding of PCC's organizational culture to more fully characterize the smart practices. Five main themes were identified: (a) adaptation; (b) collaboration; (c) creativity; (d) technology leveraging; and (e) budget. This researcher theorizes that the themes identified are organizational culture-centric. Future study of smart practice should include formal identification of impact of organizational culture on identified smart practices.

Identification of smart practices represent the starting point for institutions seeking to learn from the experiences of similar organizations. Utilizing Bardach's (2004) framework has reasonable probability to aid higher education institutions in the search for solutions to administrative challenges affiliated with online programs and degrees. As methods for delivery of online programs continue to evolve alongside advances in knowledge, design, and instruction of online courses and programs, it is highly likely there will be new administrative challenges to be resolved in the most institutionally efficient and value-laden manner.

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Appendix A

Questionnaire

Questionnaire

University of Nebraska – Lincoln
Department of Educational Leadership and Higher Education

Title of Study: A Mixed Methods Exploration of Administrative Smart Practices for
Fully Online Programs and Degrees

Distance Education Administrator

Instructions: To respond to this questionnaire, mark the circle, box, or enter your
response on the line that is provided. All responses are relative to, or inclusive of, the
2014 – 2015 academic year.

Section 1 – Identifiers and Descriptors
Institutional Identifiers
1. Name of institution:
    Address 1:
    Address 2:
    City:
    State:

Administrator Identifiers and Descriptors
2. Name of questionnaire completer:
3. Positional title of questionnaire completer (ex. Dean of Virtual Campus):

4. Email address of questionnaire completer:
5. How many years have you had direct responsibility online i.e. distance education:
    a) at your current institution?
    b) at former postsecondary institutions?
    c) at former secondary institutions?
    d) in public, private or non-profit businesses/institutions?

Definitions
Programs and/or Degrees: Any course or group of courses that lead to an
associate's degree or a sub-associated credential such as an award, certificate,
diploma or degree.

Fully Online: Programs and/or degrees offered where the student is not <u>required</u> to come to a campus or designated geographic location to participate in a class session or activity, or to receive college services such as financial aid, academic advising or other services commonly found on a college campus.

6. Utilizing the definition of *Fully Online* provided above, does your institution offer:
> Y/N Associates degree(s) or sub-associates credentials that conform to this definition?
> Y/N Access to college services that conform to this definition?

7. Is your institution a member of a consortium that together offer fully online programs and degrees? Y _____ N___
> a) If Yes, then list partnering institutions: _____

> _____

> (Note: From this point through the remainder of the questionnaire <u>respond to questions as they relate to your institution</u> even if your institution is part of a consortium collaborating to offer fully online programs and degrees.)

> <u>Institutional Descriptors</u>

8. Does your college's strategic or long-range plan include distance or online education? ___Y ___N
> a) If "yes", are fully online programs or degrees specifically included?
> ___Y ___N

9. Which of the following is the/are primary reason(s) your college offers, or collaborates to offer, fully online programs or degrees?
> (mark all that apply)
> ☐ Provide greater access for students
> ☐ Provide greater flexibility for students
> ☐ Competition for students
> ☐ College philosophy and culture
> ☐ Belief that change in delivery was needed
> ☐ Availability of technology
> ☐ Desire/need to generate additional revenue
> ☐ Reduce cost of institutional delivery
> ☐ Be state-of-the-art college
> ☐ Reach new markets
> ☐ Administrative directive
> ☐ Other (specify) _____

10. Including the 2014 – 2015 academic year, how many years has your institution offered, or collaborated to offer, fully online programs or degrees? _____

Enrollment Descriptors

11. What is the total college enrollment of full-time, unduplicated, associate's degree or sub-associates credential-seeking students enrolled at your institution during the 2014 - 2015 academic year? _____
    a) Of the number above how many are pursuing an associate's degree or sub-associates credential through a fully online format? ____

Credential and Degree Descriptors

12. Identify the number of each type of credential available from your institution through a fully online program or degree.
    Note: In the case of "laddering" of credentials your response(s) would represent a duplicated count. For example, if a certificate ladders into a diploma and the diploma into a degree each credential of the ladder would be recorded individually.

                                              Number
    ☐ Certificate   _____
    ☐ Diploma   _____
    ☐ Degree
         • Associate of Arts _____
         • Associate of Science _____
         • Associate of Applied Science _____
         • Other degree type – please provide title and a brief description:
           _____

    ☐ Other sub-associate credential type _____
         Note: "Other sub-associate credential type" is for an award type formally recognized by your institution. Provide title of award, a brief description and if it is based on credit-hours, continuing education hours or some other standard.

Faculty Descriptors

13. During the 2014 – 2015 academic year how many **full-time** faculty teach at least one course in a fully online program or degree? _____
    a) Of the number above how many **full-time** faculty teach exclusively in a fully online program or degree? _____
14. During the 2014 – 2015 academic year how many **part-time** faculty teach at least one course in a fully online program or degree? _____
    a) Of the number above how many **part-time** faculty teach exclusively in a fully online program or degree? _____

<u>Other</u>

15. If you were experiencing an administrative challenge with your fully online programs and degrees, what public community college would you look to as a source of ideas for potential solutions?

_____

Section 2
What is Smart Practice?

Best and Smart Practice are founded on the same concept, that an interesting idea exists in practice and deserves further attention. Smart Practice can be anything that aims to exploit, or take advantage of some latent opportunity for creating value at low or no cost.

Some examples of Smart Practice found in higher education include:
- Return to specialized teams of staff coordinated to assist instructors in designing and formatting materials for online courses then assisting by providing necessary technical expertise to operationalize the course.
- Mid-level administrators, example Associate Deans/Deans, which meet regularly and have the flexibility to make significant decisions on their own authority.
- Creation of a database of commonly encountered problems in online instruction combined with known workable solutions.
- Creation of an online consortium that utilizes the non-overlapping technical, curricular, etc. expertise found within the partner institutions to benefit all consortium members.

Smart Practices examples found outside higher education include:
- In the physical world – Use of levers or pulleys to move relatively heavy objects with little force.
- In the world of work – Division of labor that takes advantage of increasing returns to specialization.
- In the knowledge world – Increase in performance by taking advantage of cognitive and motivational effects of knowing efforts are paying off.
- In the world of human interaction – Enlistment of "customers" as "co-producers" to facilitate the work such as when schools help parents to coach their children in reading.

The goal of Smart Practice research is to widen the range of solutions to problems. To delineate smart practice requires specific and in-depth knowledge of the setting in which the idea was identified or discovered. This specific and in-depth knowledge allows the idea to be "extrapolated".

Extrapolation of an idea i.e. candidate smart practice, requires four elements:
- description of the problem or opportunity to which the practice is addressed written in more or less analytical terms;
- generic description of the practice, with some attention to interesting or widespread variants;
- an account of where the practice draws its "strength" i.e. its effectiveness or capacity to reduce costs with little or no performance loss – or both simultaneously, cost-effectiveness;
- description of the generic vulnerabilities of the practice.

Instructions for Section 2 of the questionnaire
In this section of the questionnaire you will be asked to consider each of the twelve
administrative challenges of online education identified by the Instructional Technology
Council's 2014 Distance Education Survey as it applies to your institution. For each
administrative challenge you identify as a *current* administrative challenge of your fully
online program(s) and degree(s) you will be asked to provide responses for three
descriptive components related to that specific administrative challenge: *Specific Issue*,
Attempted Solution(s), and *What Practices Have Worked*.

Instructions to complete the grid (below)
In column 1, "*General Areas of Administrative Challenge*," are the twelve
challenges as identified by the Instructional Technology Council's 2014 Distance
Education Questionnaire for online education programs.

In column 2, "*Current* or *Past*," mark if the *General Areas of
Administrative Challenge* shown in column 1 is a current or past administrative
challenge for your institution's fully online programs or degrees.

In column 3, *"Specific Issue"*, for only those items in column 2 marked as
Current provide a brief description of the specific issue or challenge your
institution is facing.

In column 4, *"Attempted Solution(s)"*, describe the solution(s) that were
utilized as an attempt to resolve the issue.

In column 5, "*What Practices Have Worked*", describe practices arising
from the successful solutions shown in column 4.

1 General Area of Administrative Challenge	2 Current or Past Challenge	3 Specific Issue	4 Attempted Solution(s)	5 What Practices Have Worked
Adequate student services for distance education students				
Support staff needed for training and technical assistance				
Adequate assessment of distance education classes				

1 General Area of Administrative Challenge	2 Current or Past Challenge	3 Specific Issue	4 Attempted Solution(s)	5 What Practices Have Worked
Operating and equipment budgets				
State authorization regulations				
Adequate administrative authority				

1 General Area of Administrative Challenge	2 Current or Past Challenge	3 Specific Issue	4 Attempted Solution(s)	5 What Practices Have Worked
Faculty acceptance				
Student authentication				
Compliance with new financial aid attendance requirements				

1 General Area of Administrative Challenge	2 Current or Past Challenge	3 Specific Issue	4 Attempted Solution(s)	5 What Practices Have Worked
Organizational acceptance				
Adequate space for training and technical assistance				
Student acceptance				

Please indicate your interest in participating in the interview if selected. Indicating interest does not commit you to participation, nor does it indicate that you and your institution will be selected for interview.

If selected this would include:
- a four- to six-hour interview conducted on your campus. The interview would be digitally recorded.
- providing a hardcopy or electronic file of your policy and procedure documentation for fully online programs and degrees if one exists and can be shared.

_____ - I am interested in participating in the interview

_____ - I am not interested in participating in the interview

Appendix B

Qualitative Interview Protocol

Qualitative Interview Protocol

Interview Protocol

Project Title: An Instrumental Case Study of Administrative Smart Practices for Fully Online Programs and Degrees

<u>Pre-interview information capture checklist</u>

Date:

Time:

Place:

Participant:

Organizational Position of participant:

Title of participant:

College:

Introduction:

Thank you for taking time to talk with me today. Do you have any questions regarding

the informed consent form you previously completed, about the interview, confidentially

of information myself or the research project? (Provide copy of previously signed

Informed Consent document.)

(Provide participant a copy of 14 Instructional Technology Council areas of

administrative challenge to online courses for reference.)

Description of the research project

My purpose is to explore Smart Practices of Administrators responding to administrative challenges of fully online programs. By "fully online" I am referring to those programs offered by (COLLEGE NAME) where the student is not <u>required</u> to come to a campus or designated geographic location to participate in a class session or to receive college services. By "program" I am referring to any group of courses that lead to an associate's degree or a sub-associate's credential, that is, a formal award, certificate or diploma.

I expect our interview will take about six to seven hours and want to confirm that we can have that time together before we begin.

1. Before we begin the formal interview questions, please tell me what makes (INSTITUTION NAME) unique in the world of online courses, programs and degrees?

I will ask you to respond to the next four questions for each of the 14 Instructional Technology Council's categories of administrative challenge to online courses and programs.

1. Please provide a description of the problem or opportunity to which the practice is addresses.

2. Provide a description of the practice you developed.

3. Where does the practice draw its strength, that is, its effectiveness or capacity to reduce costs with little or no performance loss – or both simultaneously - known as cost–effectiveness?

4. Are there vulnerabilities of the smart practice?

a. How were those vulnerabilities addressed?

(Turn on digital recorder and test it)

Start of formal interview

Confirm permission to record the interview. Start recording.

Review with the interviewee their response to Smart Practice submitted in the questionnaire. (Note: If multiple Smart Practices were selected from participant, repeat questions 1 – 5 for each selected one.)

Interview questions

Immediately prior to departure acquire copies/samples of documents for document review.

Final-Closing-Thank you for your cooperation and participation in the interview. I will send you a transcript of today's conversation along with a formalized description of the Smart Practices described. I ask that you review the document and ask for any further comments. In the event I have additional questions may I contact you by email or phone for follow-up?

Note: Sub-questions for each question may be developed as the study progresses.

Appendix C

Questionnaire Recruitment Cover Letter

Questionnaire Recruitment Cover Letter

Dear Community College Administrator for Online Programs and Degrees:

Your participation is requested in an online research questionnaire focusing on administrative practices for fully online programs and degrees. Community Colleges in the Integrated Postsecondary Educational Data System (IPEDS) Plains Region are asked to respond to a series of informational identifiers/descriptors, then to provide descriptive responses for practices you deem successful in addressing administrative challenges of your fully online programs and degrees.

This questionnaire is part of an instrumental case study focusing on identification of smart practices addressing administrative challenges of your fully online programs and degrees. Your position with administrative oversight of online programs and degrees places you uniquely to address these functional and experiential questions.

This questionnaire should take you no more than twenty minutes to complete. The link to the questionnaire is found at the end of the Informed Consent document located below.

Your participation in the questionnaire is entirely voluntary and you may withdraw at any time. The link and associated access code is used to ensure that only intended participants may access the questionnaire and that responses are kept confidential. Information obtained in this study may be published in scientific journals or presented at scientific meetings, but the data will be reported as aggregated data. If you have questions or concerns about your rights as a participant, please contact the University of Nebraska – Lincoln Institutional Review Board at 402.472.6965. There are no known risks associated with this research.

If you have any questions about the questionnaire please contact myself, Charles Gregory, at 308.398.7440, email cgregory@cccneb.edu, or my advisor, Dr. Brent Cejda Ph.D., at 402.472.0989, email bcejda2@unl.edu.

Your time and consideration in completing this questionnaire is appreciated. Through the assistance of professionals such as you continued progress can be made to add to educational research benefitting community colleges.

Thank you in advance for your cooperation.

Sincerely,

Charles Gregory   Dr. Brent Cejda, Ph.D.
Doctoral Candidate,   Advisor,
University of Nebraska – Lincoln   University of Nebraska – Lincoln

Appendix D

Questionnaire Follow-up Letter

Questionnaire Follow-up Letter

From: Charles Gregory

Sent: (DATE)

To: (EMAIL ADDRESS)

Subject: An Instrumental Case Study of Administrative Smart Practices for Fully Online Programs and Degrees

Greetings,

Recently you were sent an email with a link to a questionnaire concerning Administrative Smart Practices for Fully Online Programs and Degrees. If you have completed the questionnaire we certainly appreciate you time and response.

If you have not yet responded, we would like to urge you to complete the questionnaire. The questionnaire will close (DATE) and wanted to contact everyone to make sure those interested in responding had a chance to do so.

(ENTER LINK TO QUESTIONNAIRE)

We appreciate your time and consideration in this request. Your responses are important to this study.

Sincerely,

Charles Gregory   Dr. Brent Cejda

Doctoral Candidate,   Advisor

University of Nebraska - Lincoln

Appendix E

Qualitative Recruitment Letter

From: Charles Gregory

Sent: (DATE)

To: (EMAIL ADDRESS)

Subject: An Instrumental Case Study of Administrative Smart Practices for Fully Online Programs and Degrees

Dear _____

I am contacting you to determine your interest in participating in the interview component of my study on Administrative Smart Practices for Fully Online Programs and Degrees. Your interest was expressed in your positive response to the final question in the questionnaire you completed previously.

The interview represents the qualitative component of this instrumental case study and will capture specific information about the practices you felt successful in addressing the significant administrative challenges to your fully online programs and degrees. This portion of the study requires participation in an interview projected to last around six to seven hours and would be held at date, time and location on your campus convenient to you.

I would like to collect a copy of your operational policies and procedures for your fully online programs and degrees. If this/these documents are available in electronic file format they can be sent to my email address below. However, if they are available in hardcopy form I would collect them at the end of our interview.

If you are interested in participating, please do the following:
  ● Review and complete the attached consent form and return it to me, Charles Gregory, either as an email attachment to cgregory@cccneb.edu, or via fax to 308.39837440.
  ● Along with your response above, provide me with a best time and phone number so we may schedule the interview.
        ●
You may ask any questions concerning this research and have those questions answered before agreeing to participate in or during the study. You may contact me at the email or phone listed above. You may also contact the University of Nebraska-Lincoln Institutional Review Board at (402) 472-6965 to voice concerns about the research or if you have any questions about your rights as a research participant.

Thank you for your continued interest in this study.

Sincerely,

Charles Gregory   Dr. Brent Cejda
Doctoral Candidate,   Advisor
University of Nebraska - Lincoln

NOTE: APPENDIX E "INFORMED CONSENT" IS INCLUDED WITH OR ATTACHED TO THIS LETTER/EMAIL.

Appendix F

Informed Consent

Informed Consent

Participant Informed Consent Form
(Must be on University of Nebraska Letterhead)

IRB#
Title: An Instrumental Case Study of Administrative Smart Practices for Fully Online
Programs and Degrees

Purpose:
This research project will aim to explore Smart Practices of Administrators responding to
administrative challenges of fully online programs and degrees. You must be 19 years of
age or older to participate. You are invited to participate in this study because you have
been selected from the pool of qualitative participants as reporting interesting or unique
Smart Practices responding to administrative challenges of fully online programs and
degrees, and marked the questionnaire as having interest in participating in this portion of
the study.

Procedures:
Participating community colleges will be geographically located in the IPEDS Plains
Region. Semi-structured interviews requiring six to seven hours with the Administrator
responsible for the institution's fully online degree program. Interviews will be
conducted at a time and location convenient to the participant. The investigator will be
asking a series of questions, potentially with additional clarifying and probing questions,
to elicit complete response. The researcher will be audio recording responses and taking
supplemental notes during the interview. Participants will also be asked to provide
publicly available institutional documents detailing policy, procedure, and/or operational
guidelines for their fully online degree programs.

Benefits:
Participating in this research may help to advance administrative practice in the
administration of fully online degree programs. You may find the experience enjoyable
and informative. You will be provided a copy of the final report.

Risks and/or Discomforts:
There are no known risks or discomforts associated with this research.

Confidentiality:
Any information obtained during this study which could identify you will be kept strictly
confidential. The data will be stored in a locked cabinet in the investigator's office and
will only be seen by the investigator during the study and for five years after the study is
complete. The information obtained in this study may be published in scientific journals
or presented at scientific meetings but the data will be reported as aggregated data.

Compensation:
You will receive no compensation for participating in this project.

Opportunity to Ask Questions:
You may ask any questions concerning this research and have those questions answered before agreeing to participate in or during the study. Or you may contact the investigator(s) at the phone numbers below. Please contact the University of Nebraska-Lincoln Institutional Review Board at (402) 472-6965 to voice concerns about the research or if you have any questions about your rights as a research participant.

Freedom to Withdraw:
Participation in this study is voluntary. You can refuse to participate or withdraw at any time without harming your relationship with the researchers or the University of Nebraska-Lincoln, or in any other way receive a penalty or loss of benefits to which you are otherwise entitled.

Consent, Right to Receive a Copy:
You are voluntarily making a decision whether or not to participate in this research study. Your signature certifies that you have decided to participate having read and understood the information presented. You will be given a copy of this consent form to keep.

Signature of Participant:

_____   _____
Signature of Research Participant   Date

Name and Phone number of investigator(s)

Charles Gregory, MS, Principal Investigator   Office: (308) 398-7440
Dr. Brent Cejda, Ph.D., Secondary Investigator   Office (402) 472-0989

Appendix G

Qualitative Member Check Letter

Qualitative Member Check Letter

From: Charles Gregory

Sent: (DATE)

To: (EMAIL ADDRESS)

Subject: An Instrumental Case Study of Administrative Smart Practices for Fully Online Programs and Degrees

Greetings,

Thank you for the information you provided during our recent interview. The transcript is attached for your review and comment. I ask that you review the transcript and ask for any further comments. Also included is the formalized description of the Smart Practices based upon our interview. Again feel free to make comments. I will be contacting you by phone in approximately one week to capture your comments, questions, and clarifications.

For confidentiality your information will be coded as Community College respondent (INSERT NUMBER). All other name, title and geographic locations will be changed accordingly in the final report.

We appreciate your time in this step of confirming the accuracy of the data. The accuracy of your responses are important to this study.

Sincerely,

Charles Gregory   Dr. Brent Cejda

Doctoral Candidate,   Advisor

University of Nebraska - Lincoln

Appendix H

PCC Summary of Smart Practice Rank and Category

Instructional Technology Council Challenge	Institutional Challenge Rank	Intuitional Challenge Category	Smart Practice
Adequate student services for eLearning students	1	Current – Critical	Yes
Adequate assessment of eLearning classes	2	Current – Critical	Yes
Accessibility and Universal Design	5	Current	Yes
Support staff needed for training and technical assistance	9	Resolved	Yes
Compliance with new financial aid attendance requirements	3	Current – Critical	No
Compliance with student authentication	4	Not Administrative Challenge	No
Operating & equipment budgets	6	Not Administrative Challenge	No
Maintaining awareness of new trends & observing best practices	7		No
Faculty Acceptance	8	Not Administrative Challenge	No
Adequate space for training & technical assistance	10	Resolved	No
Institutional support from IT	11	Resolved	No
Adequate administrative authority	12	Resolved	No
Organizational acceptance	13	Resolved	No
Student acceptance	14	Resolved	No