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IMPLEMENTATION OF STATE DEVELOPMENTAL EDUCATION POLICY:
A MULTIPLE CASE STUDY OF COMMUNITY COLLEGE FACULTY
PERCEPTIONS OF INVOLVEMENT

by

Shirley Davenport

A DISSERTATION

Presented to the Faculty of
The Graduate College at the University of Nebraska
In Partial Fulfillment of Requirements
For the Degree of Doctor of Philosophy

Major: Educational Studies
(Educational Leadership & Higher Education)
Under the Supervision of Professor Richard Torracco

Lincoln, Nebraska

August, 2016

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Shirley Davenport, Ph.D.

University of Nebraska, 2016

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Numerous studies have indicated that developmental education as it is currently offered in many colleges and universities produces dismal results, with student success rates averaging as low as 25%. To address this issue, legislators in some states have begun to intervene, adopting policies that vary from suggestions for improvements to mandated pedagogical approaches. However, given the higher education organizational environment, the manner in which any change is implemented can be key to its success.

The purpose of this comparative multiple case study was to describe and interpret the perceptions of developmental education faculty regarding their level of involvement in developmental education legislation implementation processes in their respective states in order to determine how this level of involvement may affect faculty willingness to implement instructional change. The data examined for this study was gathered from participant interviews at a Connecticut and a Missouri community college and archival documents.

Tummers' (2010) policy alienation framework provided the framework for this study that found that faculty demonstrated change resistance when they were not included in discussions during the policy development stage and were more likely to fully engage in instructional change initiatives at the institutional level if they experienced a climate of

trust and support at their institution. Adjunct faculty who were not allowed to give input experienced the same resistance to change that full-time faculty experienced if they were not included at the strategic level. Faculty were more likely to embrace legislated change initiatives if they believed that the changes would positively affect developmental education outcomes in their respective states and their students. Faculty were more likely to resist change initiatives if they believed that those initiatives would be detrimental to their students.

These findings have significant implications for higher education policy-makers, policy implementers, and other stakeholders who wish to effect transformative higher education change through successful policy implementation.

This dissertation is dedicated to all who provided love, encouragement, and support throughout my lifelong educational journey.

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Chapter 1: Introduction

Background

Community college developmental educators face a growing dilemma as they strive to remediate students who are not college-ready. Despite instructional interventions, student completion rates in remedial coursework are similar nationwide—with approximately 25% or less of these students eventually obtaining a credential (Attewell, Lavin, Domina, & Levey, 2006; Paulson, 2012). Hamann and Lane (2004) contend that “States have the legal responsibility and authority to provide public education for their citizens” (p. 1). The authors add that the manner in which states address this responsibility and exercise their authority may vary, but the ultimate goal and purpose of any action is to establish standards and, through implementation of those standards, insure that students have “quality opportunities” (Hamann & Lane, 2004, p.1).

Because of the low completion rates experienced by students who place into developmental education, legislatures in some states are intervening, passing legislation that mandates best practices in developmental education. Banuelos (2011) found that state policy “can create an environment that encourages the identification, dissemination, and implementation of procedures that improve outcomes for students who are identified as needing remediation” (p. ii). In 2012, alone, five states—Colorado, Connecticut, Kansas, Missouri, and New York—enacted legislation regarding the delivery of developmental education at colleges and universities (National Council of State Legislatures, 2014a). Three of these states, Colorado, Connecticut and Missouri, address the manner in which developmental education instruction is implemented. Colorado House Bill 1155 grants postsecondary institutions *permission* to use multiple measures of

assessment for course placement and allows students who need remediation to enroll in college-credit courses supplemented by targeted academic support (National Council of State Legislatures, 2014a).

However, Connecticut Substitute Senate Bill 40 (Public Act 12-40) and Missouri House Bill 1042 use stronger language, clearly mandating the manner in which developmental education will be delivered in their respective states (National Council of State Legislatures, 2014a; Connecticut State Senate, 2012; Missouri House of Representatives, 2012). Section 1 of Connecticut Public Act 12-40 requires that students who are likely to be successful in college-credit coursework are provided embedded remedial support within the gateway entry-level course (Connecticut State Senate, 2012, Section 1b). In addition, the Act provides that students who are not college-ready be provided an intensive college readiness program before the beginning of the subsequent semester, prior to receiving embedded support (Connecticut State Senate, 2012, Section 1c). In both instances, the Act mentions that students will be assessed for placement “by use of multiple commonly accepted measures of skill level” (Connecticut State Senate, 2012, Section 1b; Connecticut State Senate, 2012, Section 1c).

Signed into law in August 2012, Missouri House Bill 1042 requires that all two- and four-year public higher education institutions in Missouri identify and implement best practices in delivery of developmental education. In addition, the bill mandates that the Missouri Department of Higher Education include in its annual report campus-level data on student persistence and progress toward implementing revised remediation, transfer, and retention practices (National Council of State Legislatures, 2014a; Missouri House of Representatives, 2012).

Purpose Statement

The purpose of this research study is to describe and interpret perceptions of faculty who teach developmental education regarding their level of involvement in developmental education legislation development and implementation processes in their states. Further, the study examines how perceived level of involvement may affect faculty willingness to implement instructional change. Faculty willingness is generally defined as full engagement of the faculty in adopting and implementing the policies in a manner that promotes student success.

Problem Statement

Community colleges are facing an ever broadening influx of students who are not college-ready. As a result, approximately 68% of first-time undergraduates at public two-year institutions participate in remedial education (Radford, Pearson, Ho, Chambers, & Ferlazzo, 2012). Numerous standards and definitions of success exist for judging student outcomes in developmental education. Prince and Jenkins (2005) found that students whose basic skills coursework was delivered concurrently with vocational education made significant gains in employability and earnings. As identified in Missouri House Bill 1042, student persistence may also be considered a measure of success (Missouri House of Representatives, 2012). Cuban (1998) notes that the definition of success regarding student outcomes may be very different for teachers, the “practitioners who are the foot-soldiers of every reform aimed at improving student outcomes” (p. 459) than for “policymakers and researchers” (p. 459).

Teachers, who are the front-line implementers of education policy, bring to the discussion their direct experience in observing student improvement in “academic and

nonacademic tasks in and out of the classroom” (Cuban, 1998, p. 459). For policymakers and administrators, however, completion of a credential is generally used as the standard to judge student success in higher education. Unfortunately, the current college completion rates for students who begin developmental education courses are dismal. Over 50% of those who do complete their remediation are not successful in their gateway college-level courses (Community College Research Center, 2012). Even developmental education researchers themselves disagree about whether or not developmental education as it is generally currently delivered is working (Bailey, Jaggars, & Scott-Clayton, 2013; Boylan & Goudas, 2012).

In response to low developmental education success rates, state legislatures have begun to intervene, creating policies such as Connecticut Substitute Senate Bill No. 40 (PA 12-40) and Missouri House Bill No. 1042 for the delivery of developmental education. However, perceptions of the policy-making process and of stakeholders’ level of ownership within it, as well as the stakeholders’ sense of autonomy in decision-making during the policy implementation process, may affect the success of the implementation (Gouldner, 1954; Tummers, 2010). Therefore, understanding how faculty perceive their own involvement in the developmental education policy process can help inform their level of “buy-in,” or relative willingness to implement the changes, which may be essential to the effectiveness of the policies themselves.

Theoretical/Conceptual Framework

In their texts on higher education organizations, Birnbaum (1988) and Manning (2013) do not address the role that outside entities play within the academic organization. However, Duderstadt and Womack (2003) note that “the public university in America is a

social institution, created and shaped by public needs, public policy, and public investment” (Chapter 1, Beyond the Crossroads section, para. 10). As a social entity, the public higher education institution serves a public good and is held publicly accountable for producing results from society’s investment in tax dollars (Duderstadt & Womack, 2003). Community colleges, in particular, play an important role in serving the public good by influencing social inequality. Community colleges allow individuals from lower socioeconomic backgrounds access to education and its resultant opportunities to break the poverty cycle. Schudde and Goldrick-Rab (2014) concur, noting that “Through open-access and low costs, community colleges aim to reduce inequality in educational opportunity by increasing postsecondary access” (p.7). The authors add that as worker educational attainment increases, unemployment rates decrease, and for those with a college degree, “economic success is independent of their background” (Schudde & Goldrick-Rab, 2014, p. 5).

Because higher education constitutes a public investment, state legislatures are becoming increasingly involved in the daily operations of higher education institutions, beyond regulations and student affairs. In response to societal demands, state governments have placed increasing pressure upon higher education institutions to restructure academic programs that are not producing positive results (Bastedo, 2007). While community colleges provide open access to students who otherwise may not have educational opportunities, approximately 60% of those students arrive unprepared for college-level coursework (Bailey & Cho, 2010). According to Bailey and Cho (2010), “Addressing the needs of developmental students is perhaps the most difficult and most important problem facing community colleges” (p. 1).

Developmental education programs as they have been offered in the past have produced poor results in terms of student outcomes; therefore, several states are now involved in the delivery of developmental education. Some have passed legislation that creates policies that include curricular and pedagogical mandates (Lu, 2013). Such legislative intervention can have significant impact upon faculty. Bastedo (2007) contends that passage of the legislation is the first step of a lengthy process that should result in positive change to student outcomes. During this process, it is important to include the instructional leadership constituent groups who are primarily responsible for the implementation of the legislation, particularly the “front line” implementers, faculty themselves. However, Bastedo (2007) contends that, aside from considering top-down strategic management approaches, organizational theorists in general have not addressed the academic institutional environment or how campus leaders manage it. The author further notes that “power and authority play an important mediating role,” (Bastedo, 2007, p. 300) as campus stakeholders (e.g., faculty) can manipulate their environments, sometimes through “ostensibly nonoptimal” behaviors (Bastedo, 2007, p. 303). Therefore, transformational leadership and change are desirable, as these can effect change not only in structure and practices, but in stakeholder attitudes, as well, creating a culture that “fosters success” (Cejda & Leist, 2013, p 16).

Policy alienation and change willingness. Creswell (2013) states that “We use qualitative research to follow up on quantitative research and help *explain the mechanisms* or linkages in causal theories or models . . . [in order to “tell us about the processes that people experience, why they responded as they did, the context in which they responded, and their deeper thoughts and behaviors that governed the response” (p.

48). The theoretical construct that helps frame this study, Tummers' (2010) theory of policy alienation and change willingness, examines the willingness of public professionals to implement a particular public policy (i.e., implement change). In his 2010 quantitative study, Tummers (2011) stated that "throughout change management history it has been fairly unambiguously claimed that a crucial condition for success is that employees are willing to implement the change" (p. 7). Tummers added that "change willingness" can be negatively affected by "policy alienation," which he defines as "a general cognitive state of psychological disconnection from the policy programme [sic] being implemented, in this instance by a public professional who regularly interacts with clients" (p. 7). Policy alienation is a two-dimensional concept, rooted in powerlessness and meaninglessness (Tummers, 2010). Tummers defined *powerlessness* as "a person's lack of control over events in their life" and *meaninglessness* as "the inability to comprehend the relationship of one's contribution to a larger purpose" (2010, p. 6). He further divided these two dimensions of powerlessness and meaninglessness into five sub-dimensions: strategic powerlessness, tactical powerlessness, operational powerlessness, societal meaninglessness, and client meaninglessness (Tummers, 2011; Tummers, 2010).

Strategic powerlessness, the first of the three powerlessness sub-dimensions that might negatively affect change willingness, is concerned with the content of the policy as it is expressed in the rules and regulations. To explain strategic powerlessness, Tummers (2010) states that it is "A professional feeling that the policy is drafted without the help of implementing professionals or professional associations" (p. 7). However, in the case of strategic powerlessness, individuals themselves may not feel the need to be involved in

the policy development if they trust that their professional association or other representative group has been influential in the policy development; therefore, this sub-dimension may be perceived as indirect power (Tummers, 2011).

Tactical powerlessness is the second of the powerlessness sub-dimensions. It may be perceived both directly and indirectly in terms of influential power at the institutional level, depending upon whether the individual is assigned to a workgroup or otherwise exerts influence in the implementation process development (direct power) or is satisfied that he or she has been appropriately represented by colleagues during the implementation process development (indirect power) (Tummers, 2011). Tummers provides an example of tactical powerlessness, which could be “A professional stating that the managers in his organization did not consult him or his colleagues for designing the implementation process of the policy” (2010, p. 7).

The third powerlessness sub-dimension, operational powerlessness, centers upon individual autonomy and freedom of choice in the implementation of the policy and is, therefore, directly related to perceptions of power. Tummers provides an example of operational powerlessness: “Answering ‘yes’ to a survey question asking whether the professional feels that his autonomy during the implementation process was lower than it should be” (2010, p. 7). Tummers notes that “This influence may be particularly pronounced in professionals whose expectations of discretion and autonomy contradict notions of bureaucratic control” (2011, p. 12).

Given that, as part of the culture of academia, faculty expect a certain level of autonomy in decisions related to instructional delivery, they would likely experience the expectations of discretion and autonomy that Tummers describes. Unlike other higher

education institutions, community colleges are examples of bureaucratic structures, where “Effective and efficient operation of the college depends on compliance with rules and regulations” (Birnbaum, 1988, p. 112). However, despite their placement within a bureaucratic system, community college faculty may still have expectations of discretion and autonomy when implementing instructional innovations at their institution. In a study of student success in Michigan community colleges, Hilliard (2012) found that “The most effective interventions are typically planned and carried out by faculty, and ordering them to implement an intervention yields predictably poor results” (p. 6). Birnbaum (1988) likewise notes that the “vertical bureaucratic loops” (p. 116) at community colleges can improve efficiency in functioning but can also have the opposite effect, such as when rules are imposed that alienate faculty, leading to oppositional behaviors that are contrary to the intent of the rule.

The “meaninglessness” sub-dimensions relate to the individual’s perceived value of the policy (Tummers, 2011). The societal meaninglessness sub-dimension measures the added value of the policy in terms of the societal need that it is intended to address. If the individual perceives that the policy adds little or no value to addressing the intended need, he or she may exhibit resistance to the change (Tummers, 2011). Giving an example of societal meaninglessness, Tummers states that during an interview, a professional might say, “I agree with the policy goal of enhancing transparency, but I do not see how this policy helps in achieving this goal” (2010, p.7).

Client meaninglessness, the second of the meaninglessness sub-dimensions, focuses upon the client and the client’s needs. If the individual perceives that the policy may not provide an effective solution for the client and/or may do more harm than good,

he or she is more likely to resist the change (Tummers, 2011). Tummers noted that especially for those on the front-line whose evaluation of the policy's effectiveness for their client is based upon job experience, attitude is strongly linked to employee behavior during the change implementation (Tummers, 2011). Tummers (2010) explains that an example of client meaninglessness would be "A professional noting that a particular policy seriously harms their clients' privacy" (p.7).

Tummers' (2011) quantitative study findings suggest that the strategic and tactical powerlessness dimensions do not affect change willingness; however, the operational powerlessness dimension is important to employee support for a policy. Societal meaninglessness and client meaningless are both crucial to employee willingness to implement change, with societal meaninglessness being the strongest factor (Tummers, 2011). However, Tummers noted that his study "did not explicitly examine process-related factors" and that future research might take into account "the process of policy implementation" (2011, p. 22).

While Tummers further suggested a longitudinal study in the area of policy implementation processes, a comparative multiple case study such as this one that examines community college faculty perceptions of their involvement in the policy development and implementation process might prove beneficial in terms of adding to the existing literature. In implementing developmental education legislative policies, it is important to understand faculty perceptions of their own influence and freedom in the policy implementation, as well as faculty perceptions of the meaningfulness of the policies within their own value system. Knowledge of these perceptions might assist community college leaders, as well as state elected and appointed higher education

officials, in determining how to approach developmental education policy implementation in a manner that fosters transformational change.

Research Questions

Central research question: How do community college faculty perceptions of their involvement in the design of developmental education legislation and policies, as well as their perceptions of their involvement in the policy implementation process, affect their willingness to implement instructional change?

Sub-questions:

1. How do community college faculty perceive their level of involvement in the drafting of developmental education legislation?
2. How do community college faculty perceive their level of involvement in the design of the policies resulting from the legislation and the implementation process?
3. How do community college faculty perceive their degree of choice in the implementation process at their institution?
4. How do community college faculty perceive the value of the policy to improvement of developmental education outcomes in their state?
5. How do community college faculty perceive the effects of the policy on students?

Method

This study used a collective, or multiple, case study design in order to explore faculty perceptions of their experiences with state-legislated developmental education policies and policy processes. The unit of analysis encompassed Connecticut and Missouri elected and appointed higher education officials, community college executive and instructional

administrators, and community college faculty who teach developmental education coursework and their relational behaviors during the life cycle of the developmental education policy itself, from legislative inception through institutional implementation. Two community colleges, one in Connecticut and one in Missouri, bounded in time by the implementation process and further bounded by place, provided the setting for the study. This study utilized interviews, observations (note-taking, tape-recording, etc.), and draft policy documents to elicit developmental education faculty perspectives regarding their experiences with the policy development and implementation processes. The study attempted to achieve greater understanding of how faculty involvement can affect their willingness to implement legislated instructional change.

Definition of Terms

- At-risk students—At-risk students, based upon a number of academic preparation, demographic, and behavioral factors, are identified as being at high risk of dropping out of college.
- Best practices—Best practices pedagogical methods or techniques are those that have consistently shown through research and practice to produce more effective results than other means.
- Completion—For the purposes of this study, completion refers to attainment of a degree, certificate, or personal academic goals.
- Connecticut Board of Regents—The Connecticut Board of Regents governs seventeen Connecticut State Colleges and Universities, including 12 community colleges. In addition to governance, the Board of Regents' responsibilities include

development and coordination of statewide higher education policy (Connecticut State Colleges & Universities Board of Regents for Higher Education, 2014).

- Connecticut P-20 Council—The Connecticut P-20 Council is a state-wide council of educators, business leaders and civic officials formed in 2009 to “build stronger ties among educators and policymakers at all levels of education in this state, from preschool to graduate school” (Connecticut State Senate, 2012, par. 2).
- Developmental education—For the purposes of this study, “developmental education” is used interchangeably with “remedial education.” As such, developmental/remedial education is “required instruction and support for students who are assessed by their institution of choice as being academically underprepared for postsecondary education. The intent of remedial education is to educate students in the skills that are required to successfully complete gateway courses, and enter and complete a program of study” (Complete College America, 2012a, p. cov2).
- First-generation college student—A first-generation college student is a student whose parents never attended college; often, he or she is the first person in the family to attend college.
- Gateway course—A gateway course is “the first college-level or foundation [course] for a program of study. Gateway courses are for college credit and apply to the requirements of a degree” (Complete College America, 2012a, p. cov2).
- Instructional leaders—For the purposes of this study, instructional leaders are those individuals involved in overseeing the delivery of developmental education.

These include Academic Affairs representatives from state departments of higher education and other state higher education governing bodies; representatives from statewide developmental education constituent groups; and institutional instructional leaders, such as Vice-Presidents of Instruction, Instructional Deans, and Department Chairs.

- Missouri Community College Association (MCCA)—The Missouri Community College Association (MCCA) is a Missouri group that is governed by a President's/Chancellor's Council and whose goal is to advance the mission of community colleges across Missouri.
- Missouri Department of Higher Education (MDHE)—The Missouri Department of Higher Education (MDHE) is a group that serves under the direction of the Missouri Coordinating Board for Higher Education (CBHE) and whose mission is to coordinate higher education policy to advance a high-quality postsecondary education system in the state.
- Missouri Developmental Education Consortium (MoDEC)—The Missouri Developmental Education Consortium is a group whose focus is to help develop a framework for consistency in developmental education delivery in Missouri two-year colleges. Membership includes representatives from a variety of developmental education professionals, including faculty, department chairs, institutional researchers, and administrators. MoDEC acts as a developmental education liaison between Missouri two-year higher education institutions and the Missouri Department of Higher Education.

- Persistence—Persistence is a student’s tenacity or will to persevere that leads to course, program, and college completion.
- Placement test—A placement test is an assessment instrument designed to determine a student's level of ability in one or more subjects in order to place the student in appropriate entry-level coursework in English, mathematics or reading.
- Remedial education/remediation— For the purposes of this study, “remedial education” and “remediation” are used interchangeably with the term “developmental education.” Remedial education is

required instruction and support for students who are assessed by their institution of choice as being academically underprepared for postsecondary education. The intent of remedial education is to educate students in the skills that are required to successfully complete gateway courses, and enter and complete a program of study. (Complete College America, 2012a, p. cov2)
- Retention rate—Retention rate is a percentage rate that indicates the number of students who re-enrolled at an institution that they attended the previous year.
- Underprepared students—Underprepared students are those students who enter college with academic skills below the level necessary for success in college-level coursework.

Assumptions

For the purpose of this study, it is assumed that the faculty’s perceived level of shared governance in the policy development and implementation process is related to their willingness to accept and successfully implement the policy. It is further assumed that the

participants' recollections regarding their experiences and their responses to the interview questions are accurate.

Limitations and Delimitations

A delimitation of this study is that the composition of the culture-sharing group is specific to the organizational educational structure and hierarchy in the states of Connecticut and Missouri and may not be applicable in that context to similar policy initiatives in other states. This case study is limited to the time-frame of the processes themselves, from initiation with the passing of legislation in those states in 2012 to implementation of the policies. Additional limitations are discussed in Chapter 5 of this study.

Significance

Although studies have been conducted on state legislative mandates, there is limited research on policy implementation processes and how stakeholder perceptions of their level of involvement in the process might ultimately affect policy success (Bastedo, 2007). Further, the tendency of successful faculty to critically question new information can impede institutional change (Birnbaum, 1988; Lindner, 2008), particularly if they are not involved in the identification and resolution of an issue early within the process. Developmental education legislation implementation is generally a top-down process, wherein the legislation is passed and implementation decisions then follow from statewide higher education governing bodies to institutional leadership and finally to faculty. Faculty may be informed and brought into the process only after implementation policy decisions have been established, rather than being engaged early, such as during the identification of the issue, and involved in the discussions and decisions regarding the

issue resolution. Faced with a sudden introduction to new teaching methods and curricular changes and a mandate to implement them within their own instruction, faculty may be resistant to the changes and may follow only the letter of the law, rather than executing its full intent.

By exploring faculty perceptions of their involvement in the policy implementation process and how that level of involvement affects their willingness to implement instructional change, this study provides guidance for policy-makers and educators as they implement similar processes in the future. Therefore, the results of this study may help inform any education policy development and implementation decisions at the state, organizational, and institutional levels. It could be particularly useful to instructional administrators who are charged with leading their departments through a legislatively-mandated change process and who desire to effect developmental education change through full faculty willingness and engagement.

Chapter 2: Literature Review

Introduction

In order to effectively address the purpose of a study, it is necessary to investigate, present, and critique the seminal studies and research that provide a foundation for the analysis of the issue at hand. Therefore, this chapter is devoted to a review of the existing literature relevant to this study's purpose, to lay the groundwork for consideration of the main research question, "How do faculty perceptions of state-legislated developmental education policies and policy processes affect willingness to implement instructional change?"

The chapter begins with a review of the literature on developmental education. A review of literature on these topics provides context for the discussion of developmental education legislative mandates that have been issued to higher education by many states. The policies resulting from the mandates must be implemented by the institutions that deliver developmental education, and most of that implementation burden falls upon the community colleges, which are the primary source of delivery of developmental instruction. This literature includes issues surrounding developmental education, the manner in which academic organizations are structured and the structure and delivery of developmental education within higher education institutions, institutional and curricular changes occurring in post-secondary education—particularly as they apply to developmental education, innovations in developmental education curriculum, the population of students most affected by developmental education issues, best practices models for innovation and improvement, and changes in budgeting and funding for developmental education. Because higher education is a unique organizational culture

with deeply embedded hierarchical roots (Lueddeke, 1999), it is useful to examine its aspects before considering which organizational change theory might be the best “fit” as a framework for a study of this environment.

A review of the history of bureaucratic theories provides the foundation for an understanding of organizational change. The bureaucratic theories reviewed herein begin with industrial bureaucracy theories and advance to public administration bureaucracy theories, both of which formed the basis for later organizational change theories.

Theories of organizational change help explain various change models and processes and can inform how change occurs within an organization and its culture. A review of the organizational change theory literature begins with Lewin (1947) and includes Burke and Litwin (1992), as well as Keup, Walker, Astin, and Lindholm (2001). The Van De Ven and Poole (1995) typology of life cycle, evolutionary, dialectical, teleological, social-cognition, and cultural approaches to organizational change theory is also covered. Finally, it is relevant to examine leadership theories that are particularly applicable to organizational change management, particularly as the latter pertains to the higher education organizational culture.

Issues in developmental education

Considerable recent research suggests that current developmental education efforts are failing. More than 50% of all undergraduates and 70% of all community college students enroll in one or more remedial course, and only 25% of those students will graduate within eight years (Complete College America, 2012a; Scott-Clayton & Roderiguez, 2012). Bailey, Jeong, and Cho (2010) found that only 46% of students enrolled in remediation complete their developmental course sequences in reading and only 33% in

mathematics. Even more concerning is the fact that many students who do complete their remediation never enroll in subsequent college-level gateway coursework (Bailey, Jeong, & Cho, 2009; Complete College America, 2012a). A 2012 joint statement by the Charles A. Dana Center; Complete College America, Inc.; the Education Commission of the States; and Jobs for the Future indicated that high stakes tests used in the assessment and placement process can also be a roadblock to student success. According to the joint statement, recent research has shown that the tests have weak predictive validity and that a large number of students who are placed into remediation as a result of high stakes test scores could have succeeded in gateway courses (Complete College America, 2012a; Scott-Clayton, 2012).

Bailey, Jeong, and Cho (2009) found that remedial course sequence completion was a barrier for many students enrolled in remediation, with less than half completing the sequence and only 20-40 percent enrolling in subsequent gateway coursework. However, this relatively early study in remedial student completion posits numerous questions in its conclusions regarding completion rates, including what the optimal rates might be. In contrast to Scott-Clayton (2012), who questions whether remedial coursework, alone, has any value to students in terms of improving their job skills or acquiring academic skills for gateway coursework, Bailey, Jeong, and Cho state that “there is economic value in college education even if it does not end in a degree” and that students “who complete one or two developmental courses have probably learned valuable skills even though they have not learned enough to be eligible for college-level coursework” (2009, p. 26).

In 2012, the National Institute for Staff and Organizational Development (NISOD) issued a challenge to faculty and staff across the nation to affirm the college completion agenda as an issue of national urgency and to make a commitment to actions that will help insure student success “while holding firmly to traditional values of access, opportunity, and quality” (NISOD, 2012, par. 1.) Among those actions are rethinking the culture of the community college and redirecting the focus toward student access and student success, not just access itself, as well as using data and best practices in learning and mentoring environments to foster change that will facilitate improvements in student learning, persistence and completion. While these NISOD completion agenda actions are not specific to developmental education, they are all applicable to supporting developmental students and aiding in their completion.

Scott-Clayton and Roderiguez (2012) agree, in general, with the current research on the ineffectiveness of developmental education, with the exception of one important point: They found that although remediation has little effect on students’ academic skills, neither does it discourage student persistence and progress, with the exception of those students whose test cut-scores are borderline and who may have been initially mis-assigned to remediation. Their study used a regression-discontinuity design, despite their own admission that prior studies using this methodology have yielded mixed results. Significant contributions from the Scott-Clayton and Roderiguez (2012) study include the authors’ articulation of three distinct models for developmental studies: “as development for future coursework, discouragement from further study, or simply a diversion onto a separate track” (p. 2). In addition, the study went beyond looking at credits and degree completion, investigating “under-explored” (p. 2) outcomes, such as student decisions to

enroll, subsequent course grades, and post-treatment assessments. Finally, the researchers “exploit[ed] rich high school background data to examine heterogeneity in the impact of remedial assignment by predicted academic risk” (Scott-Clayton & Roderiguez, 2012, p. 2).

While Scott-Clayton and Roderiguez (2012) did caution that the results of their regression-discontinuity analysis are generalizable only to those students scoring just below the cut scores for college placement, they also contend that they saw no positive effects on student outcomes, whether the students were identified at the lowest or highest risk, in terms of placement scores. They further found that students enrolled in developmental coursework may actually take more credits, on the whole, than other students; however, they note that the additional coursework is in remedial courses that generally do not apply to a degree or certificate, nor prepare students for the workplace. The authors did identify one area of significant risk to student completion. When students who pass writing exams are assigned to remedial reading, they are less likely to complete. In such cases, the authors noted significant increases in drop-out rates and decreases in degree attainment.

The study concluded that it is difficult to ascertain an overall level of increase or decrease in learning for students who are placed into remediation, as a significant number do not persist in the coursework and, therefore, do not take post-treatment assessments. The authors were likewise unable to account for any peer effects or lower teacher-to-student ratios that non-remediated students might have encountered in developmental coursework. Regardless of whether remediation is a barrier to completion or simply a diversion, the effects of placing students who score just under the cut scores into

development education are troubling. The Scott-Clayton and Roderiguez study suggests that 25% of students diverted away from college-level math coursework and up to 70% of students diverted away from college-level English coursework would have completed their college-level gateway courses successfully (2012, p. 29). This amounts to an overwhelming amount of wasted time and tuition dollars.

Course sequencing, rather than course structure, appears to be the most influential factor in developmental student attrition. Complete College America defined current remediation practices as “engineered for failure” (2012b, p. 2) and identified four attrition “exit ramps” (Complete College America, 2012b, p. 2) that developmental educators should strive to close: 1) the high percentage of students placed into remediation (recommendation—strengthen high school preparation), 2) the high numbers of students who never complete their remedial coursework (recommendation—start students in college-level courses with built-in, co-requisite supports), 3) the low numbers of students who do complete their remediation sequences but don’t complete gateway coursework (recommendation—embed needed academic help in multiple gateway courses), and 4) the low graduation rates for students who start college in remediation (recommendation—encourage students to enter programs of study when they first enroll) (Complete College America, 2012b).

Higher education institutional organization

It is well-established that higher education institutions experience far different organizational dynamics than the corporate world, and there are compelling reasons for examining institutional organization and culture (Birnbaum, 1988; Manning, 2013). An institutional culture can lend its participants not only a sense of identity, but

legitimization of purpose, a network of communication, a circle of collegiality, and a venue for personal development (Lueddeke, 1999). A review of recent literature on higher education organization and culture finds that two researcher's works are most frequently cited: Bergquist and Pawlak (2008) and Birnbaum (1988).

Bergquist's *Four Cultures of the Academy* (1992) has been recently updated with the help of co-author Pawlak to include two additional academic culture typologies, virtual and tangible cultures. *Engaging Six Cultures of the Academy* (Bergquist & Pawlak, 2008) discusses academic culture, in both colleges and universities. The first four cultures are those previously covered in Bergquist's earlier (1992) text: collegial, managerial, developmental, and advocacy. Bergquist (1992) describes the collegial culture as one that embodies the traditional United States higher education setting, with its roots in England's Oxbridge model. The focus is upon traditional higher education culture—liberal arts education and research and scholarship. Managerial culture, according to Bergquist (1992) is based upon the administration of higher education organizations, beginning with the Jesuits, and its focus is upon effective and efficient managerial approaches. However, Billups (2011) notes that there is much disagreement among scholars about the existence of an administrative culture (or subculture) in higher education. Some scholars suggest that because administrators are engaged in such a diverse set of duties, they are less able than faculty to support affiliations to a given academic field or discipline (Bergquist & Pawlak, 2008; Billups, 2011). Billups (2011) found that “administrators act as a definitive subculture and deserve consideration for full membership in the campus community” (p. 38).

Bergquist and Pawlak's (2008) developmental culture arose from the student activism of the 1960s. Its focus is upon faculty and student development and the evolving and expanding curriculum and research, as well as organizational change. The authors add that the advocacy culture emerged from the development of faculty unions, collective bargaining, and academic freedom and focuses upon faculty perspectives and workplace concerns. One of the new cultures they identify is the virtual culture, which discusses the higher education environment within a technological sphere, including online instruction and virtual universities and the effect of technology in general upon higher education (Bergquist & Pawlak, 2008). The last culture identified by the authors, the tangible culture, attempts to explain why students, their parents, alumni, and others feel drawn to the higher education environs.

In summation, Bergquist and Pawlak suggest that higher education leaders should discard the notion that in order to be effective it is necessary that they build community around a set of shared core values and beliefs; instead, they should work to develop a thorough understanding of the multiple cultures existing within their institutions and learn how to operate within that unique cultural framework (2008).

While Bergquist and Pawlak's cultural typologies are useful in identifying how particular elements of higher education culture have come into being, they are less useful in identifying the inner workings of a particular institution's culture and in assisting leaders with the information needed to make and execute decisions effectively within that culture.

Birnbaum (1988) maintains that higher education cultures, in particular, are distinctive and have their own personalities. He suggests that unlike other aspects of an

organization, such as policies or job descriptions, cultures are generally not subject to manipulation by administrators. He contends that it is, instead, the task of administrators to fortify and safeguard the existing culture by continually communicating it, protecting it, and rebuilding it. The author presents four models of organizational functioning that he contends typically fit “real world” higher education organizations: the collegial, bureaucratic, political, and anarchical models. He matches each of these organizational models with a fictitious institution that is representative of that cultural model.

Birnbaum’s (1988) discussion of the individual models begins with the collegial institution, which is notable as an egalitarian system. In this culture, hierarchy is underemphasized, and interactions are informal. As an example of the collegial model, the author presents a small liberal arts baccalaureate-granting institution, wherein administrators and faculty perceive themselves as equals. In the collegial model, says Birnbaum, consensus is arrived at not by unanimity but by an equal opportunity to participate in the process—to voice an opinion or stance, thereby possibly influencing the outcome. He states that leaders generally communicate in face-to-face fashion and have a participatory style; they are not appointed but elected, in a sense, by recommendation to the board of trustees by a faculty search committee. Further, leaders are often chosen from the follower ranks and typically selected because they represent the norms of the institutional culture (Birnbaum, 1988; Douglas, 2013).

The bureaucratic model described by Birnbaum (1988) is represented in his text by a two-year public community college of approximately 5,700 students. Birnbaum notes that in the bureaucratic model, the number of positions between the chief executive and the average worker increases correlatively with the size of the organization. As a

result, there is less interaction among leaders and other campus constituent groups; therefore, in order to maintain control, leaders institute more bureaucratic processes. The author states that in this model, administrators spend most of their time with other administrators and outside constituent groups, such as legislators, board members, or professional associations.

Bureaucratic leaders function as managers who establish goals and objectives to achieve results (Birnbaum, 1988; Douglas, 2013). Birnbaum (1988) explains that organizational structure is highly important in the bureaucratic model, as it denotes lines of communication—job descriptions and rules and regulations contribute to organizational efficiency and are developed and communicated in writing. The author notes that hierarchy is very important, and promotion is based upon merit, increasing the likelihood that subordinates will comply with supervisor directives; however, the existence of rules and “red tape” similarly serve to limit administrative discretion or whim.

The third model presented by Birnbaum (1988) is the political model, which is represented in his text by a regional comprehensive master’s degree-granting public university whose mission is enconced in teaching, research and service and whose student population is about 13,500. The author explains that most colleges and universities are political organizations in one sense or another; however, he notes that in a larger, more complex institution, politics are more apparent, and except among subgroups of the institution, there is little sense of community. He further notes that decision-making is decentralized, making bureaucratic processes less effective for controlling activities.

Birnbaum (1988) suggests that these interests change in congruence with issues that arise, and the institution and varying interests are too vast to achieve consensus. He notes that academic ideologies are prevalent but widely divergent. However, considerable disagreements over small issues do serve as a counterbalancing influence that keeps larger problems at bay; as a result, minor political frays (perhaps viewed as inefficiencies) can contribute to overall stability. Birnbaum adds that in the political model, ownership of processes and policies within certain groups is rarely challenged. These leaders are mediators among groups and can provide stability during challenging or uncertain times. (Birnbaum, 1988; Douglas, 2013).

In the fourth model—the anarchical model—Birnbaum (1988) describes a system of controlled, or organized, chaos, where the participants can make sense of the activities, though the casual observer may not. The author exemplifies this model with a flagship doctoral degree-granting institution of 27,500 students. In this institution, promotion, tenure, raises and prestige are based upon scholarship and productivity, and numerous campus subcultures exist. Birnbaum’s anarchical model is distinguished by three particular characteristics: problematic goals, often stated in ambiguous terms, such as “liberally educated” students; unclear technology, meaning that it is uncertain which processes produce effective results and which do not; and fluid participation, particularly on committees, which makes it unusual for two decisions to be made by the same people, even on related issues of concern. Birnbaum notes that the culture is a meritocratic one, in which the faculty and their professionalism provide authority. The role of the anarchical leader is to interpret the culture and provide meaning for the members, as well as to discover alternate resolutions to issues (Birnbaum, 1988; Douglas, 2013).

Birnbaum (1988) provides one final model of institutional culture, the cybernetic model, which is an aggregate of two or more of the other models. Douglas (2013) explains that this cybernetic model takes a general systems theory approach, explaining the higher education organization as a “nonlinear, loosely coupled open system” (p. 27). In these open systems, change occurs naturally and all organizations are to some degree composite models. Therefore, Birnbaum’s cybernetic model represents a free-flowing system wherein two or more of the other models can coexist in an ever-shifting, alternating model, where less attention is given to senior leadership and more to how the institutional systems themselves keep the college functioning properly (Birnbaum, 1988; Douglas, 2013). Birnbaum’s theoretical framework achieves importance, then, because leaders can adopt it to identify the skills required for decision-making based upon the existing models within an organization at a given time (Douglas, 2013).

Developmental education delivery

Developmental education program structure and methods of delivery can affect the academic success of underprepared students who are entering college. Paramore (2007) used a four-phase mixed-methods study to examine developmental education in the sciences at community colleges across five states and to develop guidelines for institutions that are considering offering science remediation. The four phases of the study included two surveys (phases one and two), interviews with leadership at three schools chosen for case studies (phase three), and development of the guidelines (phase four). Although a need was identified for remediation in the sciences, Paramore (2007) found that few institutions offer such programs. The ten guidelines that resulted from the study are identified as advice for leaders who are considering whether to offer sciences

remediation; however, the guidelines go beyond this purpose to assist institutions in successful implementation of developmental programs. Several recommendations for further research arose from the study, the most noteworthy of which was a need for formulation of goals and assessment methodology for developmental courses, support services, and programs in the sciences. Finally, Paramore (2007) concluded that inter-institutional collaboration, including the sharing and replication of best practices, can improve developmental education outcomes. As part of her background information, she provides a useful, clear definition of remedial versus developmental education (Paramore, 2007).

Prince and Jenkins (2005) examined longitudinal data from a five-year study of the experiences and outcomes of low-skilled community college adult learners, including those in developmental or remedial coursework, but primarily focusing on those students who need Adult Basic Education/GED preparation. The study found that students who were enrolled in basic skills courses made significant gains in employment rates and earnings if their basic skills courses were delivered concurrently with vocational education. The findings further suggest that community colleges should set a minimum completion goal for low-skilled adult learners to complete at least one year of college-and a credential. The researchers added that low-skilled adult students who were eligible to receive financial aid and developmental education were 2-3 times more likely to earn a credential, yet less than one-third of these students actually received the services.

In addition to recommending provision of developmental education and financial aid, Prince and Jenkins suggested a “commuter transit system” that would allow students to stop in and out of a program as life and financial circumstances might require but

would allow them to maintain “connections to long-term destinations” (2005, p. 24), such as a credential. The study indicated that more research is needed on barriers to success faced by the group of students who arrive at college with a high school diploma or GED, a group that comprises approximately 1/3 of all low-skilled adult learners. In addition, the authors identified a need for further study regarding how educational barriers, such as gatekeeper courses, affect low-skilled adults’ completion success.

The 2012 Complete College America initiative recommends several innovative approaches that have shown to be effective in helping students avoid remediation or accelerate through it and successfully complete gateway coursework. First, students must be fully prepared to enter college upon high school graduation. This can be accomplished by 1) adopting the Common Core State Standards in Reading, Writing, and Mathematics to help create better alignment between high school exit and college entry requirements, 2) insuring that students are given anchor assessments while still in high school, and 3) using multiple placement measures to determine college readiness (Complete College America, 2012b).

In addition, the study found that students entering college should be able to start their gateway coursework immediately and that traditional remediation should be abandoned, with co-requisite models instituted, instead. Finally, the findings indicated that colleges and universities should provide co-requisite courses that are aligned with programs of study. As part of the latter initiative, the study found that institutions should 1) convince students to choose their programs of study as soon as possible, 2) insure that math coursework is appropriate for the program of study and students are appropriately placed in mathematics courses, and 3) provide co-requisite instructional models in

gateway courses outside the areas of English and mathematics (Complete College America, 2012b).

Scott-Clayton (2012) concurs with Complete College America's (2012b) multiple measures approach to college placement. Her study focused upon the efficacy of high stakes placement exams in predicting student success in college. She analyzed the predictive abilities of the COMPASS test, one of the most widely used placement tests at community colleges throughout the country. The researcher used data collected on 42,000 first-time entrants at a large urban community college and noted that the correlation between scores and later course outcomes was fairly weak, particularly in English. She contended that students may succeed or fail in a course for a variety of reasons, making it difficult to warrant use of the exams as the only resource for determining college-level course access. The author recommended that institutions employ multiple measures of placement and consider offering special sections of college-level coursework with substantial support services (extra tutoring, etc.) attached. She further suggested that using a combination of test scores, high school achievement, and selected student risk factors might help reduce errors in placement by approximately 15 percent and help increase gateway course success rates (Scott-Clayton, 2012).

Similarly, "Core Principles for Transforming Remedial Education: A Joint Statement" includes multiple measures for placement among its seven principles for a "fundamentally new approach for ensuring that all students are ready for and can successfully complete college-level work that leads to a postsecondary credential of value" (Complete College America, 2012a, p. 6). The principles also recommend gateway courses, especially mathematics pathways, that are appropriate to the student's

declared major; gateway coursework as the first choice for placement; and co-requisite models of course support (Complete College America, 2012a).

Batchelor (2011) used a quantitative approach to determine student success by comparing how three community colleges deliver developmental education. The study examined secondary data using a z-Test for difference in means, Chi-Square Test for Independence, Pearson Product Moment Correlation Coefficient, and ANOVA to determine areas of strengths and weaknesses in student outcomes and their links with the use of various program strategies. Variables included student-to-teacher ratio, remedial course completion, GPA, retention rates, and average enrollments in remedial courses. However, the author found that none of the three institutions demonstrated success across all areas and further determined that no statistical relationship existed among the dependent variables and student success. The author recommended future studies with additional data collection and analysis, including a qualitative component to give additional perspectives to the results of the study (Batchelor, 2011).

Institutional and curricular change

Today's higher education institutions are increasingly subject to a large number of external factors and influences (Lueddecke, 1999). In addition to being governed by a myriad of federal and state regulations, institutions are now finding that state legislatures are becoming involved in directing higher education instruction, curriculum and assessment, or accountability, measures, particularly in the area of developmental education. In 2010, the National Governors Association (NGA) agreed to adopt the Complete College America Common Completion Metrics, focusing on the need to collect and analyze data to track the progress of students in postsecondary education (Complete

College America, 2012b). Complete College America has published a list of Governor's "who get it," meaning that they acknowledge an understanding and empathy for students in remediation. Missouri Governor Jay Nixon is listed among those governors (Complete College America, 2012b).

Banuelos (2011) noted that little research has been conducted on the impact of legislative policy on developmental education and student success; therefore, it is unclear whether institutional implementation of policy has had any significant effect on student completion rates. The purpose of her qualitative comparative case study was to examine developmental education policies in California and Texas and determine how they address community college education students. The theoretical framework for the study was based upon Burke and Litwin's (1992) Causal Model of Organizational Performance and Change Theory, which explored both organizational functioning and organizational change in tandem and suggested "causal linkages that hypothesize how performance is affected and how effective change occurs" (Banuelos, 2011, p. 4). The resulting comparisons of the case studies were categorized into seven areas that corresponded to the author's seven research questions: Governance Structures, State Policy Creation, State Policies, Institutional Policies, Decision-Making Processes, Faculty and Administrator Perceptions of Policy Implementation, and Student Perceptions of College Policies. The study provides separate recommendations for each state, based upon the state's current progress in policy development and implementation. Implications for future research include replication of the Texas portion of the study after 2015 to better determine student outcomes, the lack of which, due to the infancy of the Texas policy implementation, is a limitation of Banuelos' 2011 study. She further recommended that

her study might be replicated in other states that have major developmental education policies, including Colorado, Washington, and Florida. Finally, she suggested that research could be conducted to determine how community college funding can affect student completion rates, particularly in states experiencing fiscal crises (Banuelos, 2011).

In an *Achieving the Dream Policy Brief*, Collins (2009) outlined how state policy development and implementation can guide community colleges in their quest to help underprepared students achieve success. The brief discussed how fifteen *Achieving the Dream* participant states have concentrated their efforts into four strategy categories: Preventive Strategies, Assessment and Placement, Implementing and Evaluating Program Innovation, and Performance Measurement. According to Collins (2009), states should play a role in reducing the need for developmental education by setting and communicating expectations for college-readiness standards, early assessments of readiness for high school students, alignment of high school and college curriculum and expectations. In addition, the brief indicated that states should adopt and implement well-designed assessment and placement policies that ensure proper course-level placement for students, whether that placement is in remediation or in college-level coursework. Further, said Collins (2009), states “that are serious about improving outcomes” (p. vi) should encourage and support innovation in developmental education programming, including providing resources for institutions that experiment with new interventions that show promise. Finally, Collins recommended that because states can exert a great deal of influence over the selection of performance indicators, they should be mindful that developmental education students often reach milestones and other measures of interim

success on the way to the final goals of graduation and transfer and therefore should “inform state incentives to help students meet shorter-term goals” (Collins, 2009, p. vi).

The policy brief contains clear information on specific successful policies, by state, that have been implemented for each of the aforementioned strategy areas (Collins, 2009). It also provides recommendations for the types of institutional innovations that should be supported by state policy, including accelerated developmental education, supplemental instruction and paired coursework, integrated/contextualized education, and First-Year Experience programs (Collins, 2009).

A more recent Jobs for the Future policy brief “From Innovation to Transformation: Texas Moves to Reform Developmental Education” (Clancy & Collins, 2012) contains information that is particularly relevant to this study in that it recounts the process through which Texas community colleges implemented a mathematics initiative, the New Mathways Project, in every college in the state—no small feat given Texas’s large community college system comprised of 50 separate districts. This large reform required the cooperation and collaboration of five separate statewide entities: The Texas Legislature, the Texas Higher Education Coordinating Board, the Texas Association of Community Colleges, the Charles A Dana Center at The University of Texas at Austin, and Educate Texas (Clancy & Collins, 2012).

The state was invited to become an Achieving the Dream participant in 2004, but the process that led to the creation of the Coordinating Board’s first developmental education plan in 2009 began years earlier, in 1987, with the enactment of the Texas Legislature of the Texas Academic Skills Program. The brief describes how proponents of the Texas Developmental Education Initiative went about engaging state and national

research and policy organizations, as well as regional and local organizations, in the initiative (Clancy & Collins, 2012). The authors explain the usefulness of their brief in guiding reform efforts by generating buy-in through the shared governance process. Their brief also provides historical information that underscores the importance of obtaining “buy-in” from college leaders and faculty when creating or implementing policies specific to developmental education innovation (Clancy & Collins, 2012).

In their report, “The Turning Point: Developmental Education in Virginia’s Community Colleges,” Eddy and Amey (2009) outlined the success of the 12 month-long efforts of the Virginia Commonwealth’s Developmental Education Task Force to include all stakeholders in the process of developing and implementing innovative policies for developmental education. The task force, which included both community college and K-12 representatives, immersed themselves in researching and analyzing literature on best practices in developmental education (Eddy & Amey, 2009). After compiling this information, they held town hall meetings at the colleges, presented information at the Virginia Community College System meetings and conferences and then developed a blog to gather feedback from administration, faculty, staff, and students which was included in the final report (Eddy & Amey, 2009).

Collins (2009) named Virginia as a state whose approach was “noteworthy” in that it recognized that bringing K-12 and community college stakeholders together was critical to achieving collaboration and cross-sector consensus needed to establish placement cut scores, which are linked to high school students’ skills and competencies. In describing the Virginia Task Force, the author explained that the faculty became divided into two opposing camps—those that worried that setting cut-scores too high

would create a barrier to student access and those that worried that setting them too low would sacrifice academic integrity and rigor. Compromise was necessary on both sides to arrive at consensus. Collins suggested that “States navigating similar terrain should be prepared to help faculty resolve this tension and arrive at a balanced approach that facilitates access while preserving academic excellence” (2009, p. 10). The author noted that states have found that the collaboration itself was more important to student achievement than the scores or other agreed upon actions themselves, because a student’s academic preparation is likewise a collaborative process among many individuals.

Developmental education student population

Incoming college students in certain demographic groups are at higher risk of failure and are more likely to need remedial coursework. Complete College America found that at two-year colleges, African American (67.7%), Hispanic (58.3%), and Low Income (64.7%) students were most likely to need remediation before beginning college-level coursework. Age group did show some variance, with the 17-19 year-olds in the highest-risk category at 54.7%, compared to students 25+ years old at 42.5%. In Missouri, 20.6% of Hispanic students entering two-year colleges require remediation, compared to 16.5% of African American students, 24.2% of white, non-Hispanic students, and 20.8% of students identified as “other” (Complete College America, 2012b, pp. 6-10). By age group, 22.6% of Missouri students aged 17-19 placed into remediation upon enrollment, compared to 21.5% for the 20-24 age group and 12.2% of students 25 and older.

Corresponding data is unavailable for Connecticut, as this state did not participate in the study (Complete College America., 2012b, pp. 14-15). However, approximately two-thirds of the community college students in Connecticut are not prepared for college

coursework in math, reading or writing; in some cases, students are unprepared in all three subjects (Jacobs, 2014). Unfortunately, 30% of these students, nationwide, are so discouraged by being placed into remediation that they don't bother to enroll in their first or subsequent remedial course (Complete College America, 2012b). Of those that complete the remedial sequence, another 30% do not enroll in their gateway coursework (Complete College America, 2012b).

In her ex post facto study, Paulson (2012) used logistic regression to analyze the effect of gender, race/ethnicity, age, enrollment status, receipt of financial aid, family status and purpose to identify nonacademic factors that may influence whether or not underprepared students are able to complete remedial coursework and progress effectively into college-level classes. The author likewise analyzed these factors in order to determine whether they might help predict student persistence. The study is significant in that it underscores the need to provide support services and best practices remediation for underprepared students at the outset of their courses of study. The author identified numerous possibilities for further research, including qualitative studies to explore the experiences of underprepared students, examination of a possible correlation between nonacademic factors and levels of remediation needed and how these nonacademic and academic factors combined affect student success in developmental coursework, the effects of financial aid availability, and further logistic regression analysis to examine at-risk groups more closely (Paulson, 2012).

Navarro (2012) found that multiple risk factors affect low income and minority students' ability to perform well in college and complete a credential. These factors are primarily personal and are associated with the students' complex lives. They include

poverty; parental stress about finances; unsafe neighborhoods with gang and gun violence; the need to work and contribute to family finances; trauma and domestic abuse; substance abuse and addictions; homelessness and hunger; illness and death in the family; being the first in the family to attend college; and having a lack of role models and cultural understanding of higher education (p. 45). Mental health issues are likely involved as well. Navarro cites Tucker's (2007) study that indicated that children living in urban poverty experience Post Traumatic Stress Disorder at almost double the rate of soldiers returning from war in the Middle East (as cited in Navarro, 2012). All of these personal factors can contribute to a student's ability to perform well academically and successfully navigate the complexities of academic culture.

Developmental education innovations

In order to serve the needs of underprepared and at-risk students, developmental educators must continually research and implement best practices educational approaches. Jenkins, Speroni, Belfield, Smith-Jaggars, and Edgecombe (2010) conducted a quantitative research study of the College of Baltimore County's Accelerated Learning Program (ALP), in which students who placed into the highest level developmental English course were enrolled in a college-level English 101 course and concurrently enrolled in a "companion" ALP developmental English course. Ten seats were set aside for developmental students in the English 101 courses; the remaining 10 students in each section had placed into college-level English. The developmental courses met immediately after the English 101 courses and were taught by the same instructor. The study found that students who participated in the ALP model had considerably better outcomes, not only in English 101 but in their English 102 course, as well (Jenkins, et al.,

2010). Since the ALP model was designed to improve these outcomes, the accelerated model appeared highly successful. Another positive finding for the study relates to cost-effectiveness. The additional instructor salary for the developmental course (which is prorated, due to the small class size of ten students) is partially off-set by the tuition charged to the students for the second class. A cost-benefit analysis conducted during the study indicated that “as measured by cost per successful students (\$2,680 versus \$3,122)...the benefits of ALP are more than double the costs” (Jenkins, et al., 2010, p. 12). However, the study found that these positive outcomes did not correlate with increased pass rates in other college courses nor with increased overall college completion rates. In fact, non-ALP students (students who completed the stand-alone developmental English course before enrolling in English 101) were more likely to persist in attempting college-level coursework beyond the English sequence. Jenkins et al (2010) noted that the study did not measure other student characteristics that may have contributed to the ALP student success in their English courses. The researchers suggest that student motivation, which was unmeasured, may account for both non-ALP students’ increased persistence in attempting college-level work and for ALP students’ increased English 101 and English 102 success rates (Jenkins et al, 2010).

Among the promising innovations identified in the Manpower Development Research Corporation (MDRC) Executive Summary are “interventions aimed at helping students *avoid* developmental education by shoring up their skills before they enroll in college” (Rutschow & Schneider, 2011, p. ES-2). Similar to the interventions prescribed by the Complete College America initiative, these interventions are designed to give college-bound students academic *and* college-success skills. Wathington (2010)

examined several summer bridge programs in Texas. These programs are implemented by colleges, and in addition to providing remediation to reduce the need for developmental coursework, they also allow students exposure to college-level academic expectations. They further provide an avenue for direct student-faculty interaction due to the small class sizes and allow students to build support relationships through a cohort structure. Finally, the programs often give stipends to students who participate so that they can enroll in the 4-6 week programs without the constraints of working summer jobs (Wathington, 2010).

Wathington (2010) found that when underprepared students complete summer bridge program interventions, they accumulate less developmental coursework and more college credit coursework. Similarly, Torraco (2012) found that when taught in the context of job training, bridge programs can help underprepared students develop the academic and problem-solving skills that they will need for employment. Ideally, these programs should include a number of support services, including academic counseling, financial aid services, child care services, and job and college placement. Although Wathington (2010), Rutschow and Schneider (2011), and Torraco (2012) found many positive outcomes for completers of these bridge programs, there is little literature on the perceptions that instructors and students themselves have of the summer bridge programs and of the benefits that the students derive from them, whether they make academic gains during the programs or not.

Complete College America (2014) identifies several “game changer” best practices strategies that have shown success in helping developmental students achieve their academic and career goals. These strategies included making college-credit

coursework the default enrollment for more students and incorporating additional supports for the students. Such supports can vary from intrusive advising to embedded tutoring and other supports. Co-requisite math and English models allow underprepared students to enroll in their gateway college credit course (such as English Composition I or College Algebra) while concurrently attending either a co-requisite developmental course or a co-requisite lab (Complete College America, 2014; Jenkins, et al., 2010). Recent research indicates that approximately 75% of underprepared students succeed when placed in co-requisite coursework (Complete College America, 2014).

Among other Complete College America (2014) game changer strategies, placement ranges have been found to be better predictors of college success than single cut scores established by high stakes placement exams, particularly when paired with co-requisite coursework and other supports. Multiple measures of placement are also better predictors than high stakes exams and may include high school grade point averages. Aligning mathematics to programs of study is another very effective measure to insure college completion; for example, algebra may not be the most appropriate mathematics track for students when their programs require statistics or quantitative literacy.

Developmental education funding

Changes in higher education agendas and resulting changes in state and federal funding models have affected developmental education programming. Hurley, Harnish, Moran, and Parker (2013) found that recent higher education policy agendas are focusing on increasing affordability, productivity, and student success. The authors note that funding allocation processes are aimed at performance-based funding designs that incentivize institutions to improve retention and completion outcomes. State merit-based grant aid

programs continue to outpace need-based financial aid, despite the evidence that high-achieving students are more likely to complete with or without aid. This focus on merit-based aid indicates a skewed perception of proper eligibility criteria, given recent demographic trends (Hurley, Harnish, Moran, & Parker, 2013).

Arendale (2011) states that federal grant programs for developmental education learning assistance—including TRIO grants that have been helped fund the establishment and implementation of learning assistance centers that target developmental education students—may be in jeopardy as large national evaluations studies are undertaken to determine program effectiveness. The author notes that in some states, policy-makers want to make students who repeat developmental education courses pay for the true cost of delivering the courses, which can be as much as three times higher than college credit coursework at the same institution, yet such measures increase the cost of education for students who often are least able to afford college. In response, Casper College in Wyoming has implemented a plan that requires high school districts to pay the cost of developmental education for their graduates, and other states are considering similar policies. Georgia's Board of Regents has approved policies to raise admission standards, thereby decreasing the number of incoming students who need developmental education at both two and four-year institutions (Arendale, 2011). Unfortunately, this approach also serves to reduce access to higher education for many prospective students.

Hurley, Harnish, Moran, and Parker (2013) also discuss developmental education reforms and the funding repercussions that often accompany them. They note that, as of 2013, twenty-one states and higher education systems had prohibited developmental education delivery at four year institutions or had withdrawn funding for it. Arendale

(2011) adds that some four-year schools are subcontracting developmental education to community colleges. The author further indicates that institutional or state budget cuts are often provided as rationale for reducing or eliminating developmental education curriculum and learning assistance programs. Instead of directly banning the programs, states effectively do so indirectly by not including developmental coursework in the credit hours or head counts for state reimbursements. Still other states are requiring that students complete all developmental education coursework within the first twelve months after initial enrollment (Arendale, 2011). Students who do not complete the coursework within those twelve months would in effect be cut off from enrollment not only in developmental education coursework, but effectively, from gateway college credit coursework, as well (Arendale, 2011).

From the state legislatures' point of view, developmental education is expensive. According to the National Council of State Legislatures (2014b), remedial education costs states and students approximately \$2.3 billion per year. In addition, fewer than one-half of all developmental education students complete their remedial coursework, and fewer than one-fourth of developmental education students complete a credential within eight years. Measures that decrease the need for developmental education and increase completion rates could generate as much as \$3.7 billion annually (National Council of State Legislatures, 2014b).

Many states have already implemented or are considering implementation of a performance-based funding model. Missouri is among 25 states that currently use some form of performance-based funding (National Council of State Legislatures, 2014c). The performance based funding model shifts the focus from enrollments to retention,

transfer, and completion and rewards institutions based upon measures of the latter criteria. The funding formula varies from state-to-state, but many states include specific measures for colleges that enroll and graduate low-income, minority, and adult students, as well as students majoring in high-demand fields (such as STEM). Performance-based funding models promote preservation of academic integrity and quality in the achievement of performance goals (Complete College America, 2014; National Council of State Legislatures, 2014c). Given the traditionally low-success rates associated with at-risk students, such low-income, minority, and adult students, innovative developmental education approaches are needed to ensure that these students can achieve their college and completion goals and institutions can continue to receive funding to serve these populations.

Relevant theories

Bureaucratic theories. In order to begin a discussion of higher education organizational change, it is useful to first examine theories of bureaucracy, or organizational administration. Max Weber's (1947/2012) theory of bureaucracy has guided many subsequent studies of the subject. In sharp contrast to popular stereotypical views of bureaucracy as the hallmark of organizational inefficiency, Weber's perception of bureaucracy is that of a highly efficient method of organizational administration, in which the "qualified specialist" supersedes "the undependable amateur" (Gouldner, 1954, p. 19). However, in his *Patterns of Industrial Bureaucracy*, Gouldner (1954) took issue with what he saw as a "cavalier" oversight in Weber's definition of bureaucratic effectiveness, maintaining that it overlooked the ways in which the rules are implemented—whether they are administratively imposed or initiated through

stakeholder buy-in. According to Gouldner, Weber's definition of bureaucratic effectiveness placed heavy emphasis on obedience; the content of the policy justified the means of implementation. He further noted that Weber had not addressed the questions of whose goals might be effectively met or to whom the effectiveness of meeting those goals might prove useful; for example, what might be rational or expedient for administration might seem less so for the workers who must accept and implement the rules. In summary, Gouldner places Weber's theory among those that see bureaucracy as a "complex social system, concerned less with the individual differences of the actors than with the situationally shaped roles that they perform" (Gouldner, 1954, p. 16).

Although Gouldner doesn't specifically posit his own study among those that address organizational change theory, his case study focuses upon organizational change that occurred when a new plant manager took command at a gypsum plant in 1948. Workers perceived that the unstable situation that subsequently developed was linked to the bureaucratic changes that the new manager had implemented. The prior culture of the plant was that of an indulgency pattern, in which the workers experienced loyalty to the company, trust for supervisors, and job satisfaction as a result of identifiable patterns of social relationships based in large part upon administrative leniency. The result of this pattern of leniency was the development of an advanced cultural perception of personal autonomy among the miners, a sense of being their "own bosses" (Gouldner, 1954, p. 111). When the new plant manager attempted to impose rules to improve efficiency, the miners resisted. As a result of his study, Gouldner concluded that in order for bureaucratic rules to be effectively implemented, they must be considered both expedient (able to achieve desired results) and legitimate (morally right or appropriate). In the case

of the gypsum plant, the new rules that were implemented were not able to achieve the desired results, regardless of their appropriateness.

Gouldner (1954) identified three clear bureaucratic tendencies: *mock bureaucracy*—a situation in which all of the “bureaucratic cues” are in place (signs, inspections, etc.) but workers simply ignore them; *representative bureaucracy*—a situation in which workers participate in the initiation and implementation of the bureaucracy and, therefore, are more likely to legitimize it; and *punishment-centered bureaucracy*—which is distinguished by the execution of punishment for deviations from the rules. The author provides a summary of six factors related to these three bureaucratic tendencies. Legislative mandates may fit under factor #1, “Who Usually Initiates the Rules?” and also under the Mock Bureaucracy pattern, wherein “The rule or rules are imposed upon the group by some ‘outside’ agency” (Gouldner, 1954, p. 216). Further, Gouldner’s factor #2, “Whose values legitimize the rules?” falls under the Representative Bureaucracy pattern and could also be applicable to institutional implementation of legislative developmental mandates, as implementing best practices in developmental education is recognized as a legitimate value by all stakeholders within the culture-sharing group. All of these factors could be associated with institutional buy-in or resistance to legislatively mandated developmental education policies during the implementation process.

Organizational change theories. Social scientist Kurt Lewin’s Field Theory (1947) and his three-step model of change is often considered the first theory of organizational change (Burnes, 2004; Kauser, Minnick & Jacobs (n.d.); Kritsonis, 2005). In Field Theory, organizations maintain a state of “quasi-stationary equilibrium,” a

condition of patterns of group behavior and processes that shift with changes in the stimuli and situations that affect the group (Burnes, 2004; Kauser, et al. (n.d.)).

Lewin conjectured that identification of these shifting dynamics and the characteristics of a group can help with understanding why the group responds to the changing forces in a particular manner. Once understanding is achieved, positive change in the manner in which the group reacts to forces can be effected (Lewin, 1947). Lewin was the first to identify group dynamics and how the pressures of group conformity affect individual behavior. Like Weber (1947/2012), Lewin does not espouse giving attention to the individual when organizational change is needed; unlike Weber, who in his theory simply omitted reference to individuals, Lewin specifically notes that “it is fruitless to concentrate on changing the behavior of individuals because the individual in isolation is constrained by group pressures to conform” (Burnes, 2004, p. 983). Lewin also introduced action research, a two-part process that emphasizes that action is necessary to achieving change and that productive action requires accurate analysis of the situation, identification of any possible solutions, selection of the most viable solution given the situation (Burnes, 2004).

Lewin is perhaps most cited for his three-step model of organizational change, which is commonly referred to as the unfreezing/changing/refreezing of behavior model (Kauser, et al. (n.d.)). The first step in this model, unfreezing, is the first step in changing the equilibrium or status quo state, in order to reduce group conformity and individual resistance and allow new behaviors to become established (Burnes, 2004; Kauser, et al. (n.d.); Kritsonis, 2005). Motivating group members by preparing them for the impending change, building trust and buy-in for change need, and involving stakeholders in

identification of problems and solutions can help “unfreeze” existing behaviors (Kritsonis, 2005). The second step, changing, is the movement state. In this step, action research may be necessary to identify all forces in play in the situation and to identify all possible solutions (Burnes, 2004). In some instances, an external expert, such as an organizational development HRD practitioner, may help with the situational analysis (Kauser, et al. (n.d.). Finally, the third step, refreezing, is needed to assure that the accomplished positive changes “stick” and can be maintained over time (Burnes, 2004; Kauser, et al. (n.d.); Kritsonis, 2005). In this phase, the new behaviors must become part of the institutional culture (Burnes, 2004; Kauser, et al. (n.d.); Kritsonis, 2005). It may be necessary to formalize them by establishing them as policies and procedures (Burnes, 2004; Kauser, et al. (n.d.); Kritsonis, 2005).

Most modern researchers contend that although Lewin’s theory is very goal-oriented, adding that it is too linear, planned and discrete for today’s global organizations in which rapid, complex change is an ongoing process (Kauser, et al. (n.d.); Kritsonis, 2005). Other criticisms include Lewin’s oversight of the weight of power and politics in effecting organizational change and “top-down, management driven” change approach (Burnes, 2004, p. 996). However, Burnes (2004) notes that Lewin’s planned approach to change is still viable when considered as a basis for “building understanding, generating learning, gaining new insights, and identifying and testing (and retesting) solutions” (Burnes, 2004, p. 997).

Keup, Walker, Astin, and Lindholm (2001) echo some of Lewin’s contentions in their digest on the effect of organizational culture on institutional change. The authors organize their discussion around three distinct facets of the change process: first, the

institutions' readiness for and responsiveness to change; second, resistance to the planned change; and third, results of the transformation process. The first step, readiness for and responsiveness to change is much like Lewin's unfreezing step, in that preparation for the upcoming change is necessary to effective change processes. This preparation includes identifying the current culture by utilizing stakeholder participation (again, similar to Lewin's step) and establishing an environment of trust. The authors indicate that aligning strategies with institutional culture and long term goals can likewise help foster stakeholder buy-in. However, they also note that effective change is more likely if the proposed change initiative is a good fit with the existing organizational culture. They cite four different institutional value characteristics—collegial, elite, meritocratic, and leadership-style—and note that organizations that value collegiality (teamwork, participation, commitment, and high levels of affiliation) are generally more open to change.

Resistance to change is a phase that is often underestimated or overlooked in discussions of institutional transformation, yet Keup, Walker, Astin, and Lindholm (2001) suggest that it is “a pervasive occurrence in attempts at planned change” in the workplace (p. 4). The authors cite Reynolds' (1994) model for workplace change, which includes four phases of progression: denial, resistance, exploration, and commitment (as cited in Keup, et al, 2001). Once individuals move through the denial and resistance phases, there is generally a flurry of activity and obvious engagement among the members of the institution. The next step, says Keup et al., is the results step (again, similar to Lewin), in which it becomes necessary to see that the change that is instituted can be sustained over time. For this to happen, a true shift in culture has to take place—as

the authors note, “If resistance indicates that the innovation has reached the cultural level of the institution, a significant cultural shift truly verifies that transformation has occurred” (Keup, Walker, Astin, & Lindholm, 2001, p. 5).

Kezar (2001) identified six categories of organizational change approaches, noting that, of these six, the life cycle, evolutionary, dialectical, teleological approaches are based upon the typology extended by Van De Ven and Poole (1995). Kezar (2001) added the social-cognition, and cultural approaches to her study. The Evolutionary model assumes that change is directly tied to the circumstances, situational variables, and environment within an organization and that individuals do not significantly influence the change process (Kezar, 2001). This model does not allow for planned or managed change and is the basis for chaos models, which suggest that organizations respond to environmental issues as they occur (Kezar, 2001; Poole, Van de Ven, Dooley, & Holmes, 2000). These models are widely criticized for their failure to acknowledge organizations as complex social phenomena; however, the model is often cited in current literature (Kezar, 2001).

The teleological model is also known as planned change and includes within its boundaries strategic planning, organizational development, and adaptive learning; change is driven by internal, rather than external, forces, and these forces are intentional in nature (Kezar, 2001). Organizations in the teleological model are “purposeful and adaptive” (Kezar, 2001, p. 33) and leaders are the agents for change, the focus, and at the center of the process (Kezar, 2001). This is the most widely cited model in current research, perhaps because of the numerous benefits of strategizing and analyzing change processes, as well as the collaborative nature of the approach (Kezar, 2001). Kezar (2001) notes that

it is often referenced in change resistance research, and as a predominant change model, the approach has been studied and found relevant, depending upon the nature of the change. However, it is also criticized for being excessively rational and linear and overemphasizing “human creativity, thoughts, and decisions” (Kezar, 2001, p.36).

The life cycle model, also known as the developmental model, places an emphasis on individual change. In this model, “change is imminent” (Van De Ven & Poole, 1995, p. 515) and occurs rationally as part of a life-cycle; it takes place not because of desire for change but naturally, as a movement that cannot be transformed or halted (Kezar, 2001). Management does play a role within this model, though not to the extent that it plays in the teleological model, and the environment is viewed as hostile and uncertain (Bolman and Deal, 1991; Kezar, 2001; Poole, et al., 2000). In the life-cycle model, organizations seek to create a new identity, a process which also creates resistance; leaders assume the role of mentor or guide and change is achieved through development of staff, with a goal towards maturation of the organization (Kezar, 2001). The life-cycle model is somewhat related to the learning/unlearning model, such as Lewin’s (1947) unfreezing/freezing model, and to emotional intelligence models (Kezar, 2001). One positive aspect of the model is that it contends that organizations go through different phases in the change process as the focus veers away from leaders and the environment and toward people (Kezar, 2001). However, the efficacy of the life-cycle model is not empirically well-accepted and the emphasis on pre-determined stages of change lends some rigidity (Kezar, 2001).

Dialectical models (Kezar, 2001; Poole, et al., 2000) are derived from a Hegelian-Marxian perspective in which “a pattern, value, ideal, or norm in an organization is

always present with its polar opposite” (Kezar, 2001, p. 40). In this model, organizations go through bursts of somewhat radical change, during which opposing forces and belief systems experience direct conflict; in fact, conflict is viewed as intrinsic to human interaction, and the change process results in a new “organizational ideology or identity” (Kezar, 2001, p. 40). A collective culture is fundamental to this model, yet leaders are also central to the process, which is a much like a political or social movement (Kezar, 2001). The latter characteristic, which can be viewed positively, is also at the root of a criticism of the theory (Kezar, 2001), as the change process can be too non-linear and erratic. More importantly, this model does not provide clear direction for organizations and leadership (Kezar, 2001).

According to Kezar (2001) social cognition models, which generally arise from a phenomenological or social-constructivist organizational perspective, have become increasingly popular. This model studies the manner in which change is effected through leader conceptualization and interpretation of the change, as well as how that change is received, construed and implemented by individuals (Kezar, 2001). The basis for change arises from the appropriateness of the change and from cognitive dissonance, a learning phenomenon that occurs when bits of conflicting information are brought together in the brain (Collins, 1998). Here, change is not presented linearly or in stages but is a “multifaceted, interconnected, overlapping series of processes, obstacles, and individuals” (Kezar, 2001, p. 45), and the desired change outcome is to transform the way of thinking, perspective, or worldview, as experienced by individuals (Kezar, 2001). Kezar notes that because of the emphasis on individual meaning, the social cognition model has gained its place as a major contribution to change study; however, the model is

criticized for the failure to consider environmental and external change factors and for the minimization of the systemic viewpoint (2001). Further, some critics believe that the model places too much emphasis on the individual's ability to alter his or her own identity or reality, and cultural models contend that social cognition, in general, does not consider individual values and feelings (Kezar, 2001).

Cultural models of change are hybrids of the social-cognition and dialectical methods and assume that cultures constantly experience change, which takes place slowly and over a lengthy period of time, as a response to fluctuations in the human environment (Kezar, 2001). In this model, change involves "alteration of values, beliefs, myths, and rituals" (Kezar, 2001, p. 50). History, tradition, and symbolism are emphasized because they are representative of the aggregate of change processes for the organization (Kezar, 2001). Like social-cognition theories, change can be either programmed or un-programmed and "tends to be nonlinear, irrational, non-predictable, ongoing, and dynamic" (Kezar, 2001, p. 50). Cultural models are lauded for their attention to context, including consideration of values and beliefs, areas that had not been previously addressed by most scholars (Kezar, 2001). However, the suggestion that culture can be shaped or managed has received criticism as a simplistic approach (Kezar, 2001). The cultural model may also be perceived as impractical due to its complexity and slow achievement of outcomes (Kezar, 2001).

An approach espoused by many researchers is to use a composite of several of these models, as each has its strengths and addresses a relevant organizational area. However, there is disagreement among researchers as to which combination of theories is best. One of the most well-known multiple models is Bolman and Deal's four frames of

organizational change (1991). According to the authors, the different models and organizational theories are each valuable for the way in which they identify how individuals behave within organizations. By viewing the change situation through various perspectives (human resource, structural, political, and symbolic), leaders can more effectively manage change processes (Bolman and Deal, 1991; Kezar, 2001). Kezar (2001) mentions the learning organization model introduced by Senge (1990) as another multiple approach model. Senge's learning organization model is comprised of evolutionary, social-cognition, cultural, and teleological models (Kezar, 2001; Senge, 1990). Senge suggests that managers use systems thinking in order to foster change by examining the amalgamation of interrelationships involved in shaping organizational behavior and keeping the broader economic and natural processes in mind when determining actions (Kezar, 2001; Senge, 1990). This approach has achieved some popularity because it includes accepted principles of change while giving leaders a framework for practical application of those principles (Kezar, 2001).

In her literature review, Lindner (2008) presents an excellent overview of change in higher education. Her review covers the higher education environment; organizational models, including organizational cultures and subcultures within higher education; change management; effective change leader traits; and effective practices for managing and sustaining change in higher education environment. Lindner concludes her review with an analysis of the influence of organizational cultures and subcultures on the change process (Lindner, 2008).

Lueddeke (1999) proposed what he calls the Adaptive-Generative Model (A-GDM) of higher education change, a model influenced by constructivism's three primary

propositions, which the author contends originate in situated learning models: personal construction of reality; social negotiation and evaluation of these personal understandings, thereby leading to knowledge; and the relativity of “truth,” depending upon personal context (Lueddeke, 1999). Lueddeke’s model consists of six “interrelated elements: Needs Analysis, Research & Development, Strategy Formation & Development, Resource Support, Implementation & Dissemination, and Evaluation” (Lueddeke, 1999, p. 248). While Lueddeke’s model does propose a plan of action, it is less like the previous theoretical change models discussed in that it is somewhat static and prescriptive; it appears to be more of a subset of the teleological model, which includes planning and strategizing (Lueddeke, 1999).

Finally, Burke and Litwin (1992) focus upon causal relationships and their effect upon performance and change within an organization. This model links internal and external factors and how they affect the organizational culture as it relates to change (Burke & Litwin, 1992). The authors also provide a distinction between transactional and transformational dynamics within organizations. The resulting causal model focuses upon planned change and its effective management through the diagnosis of causal factors and relationships (Burke & Litwin, 1992).

Leadership theories. Much has been written on the importance of leaders as change agents. However, less literature is available that is specific to higher education. Because the higher education environment is unique (Lueddeke, 1999), it is necessary to not only review and analyze various leadership theories but also to examine them for relevancy to the higher education environment.

In her comprehensive literature review, Douglas (2013) presents and critiques leadership within the context of the higher education organization, focusing on Birnbaum's typology of models of organizational functioning. The author notes that this typology provides a theoretical framework for understanding the higher education organization and leader-constituent patterns of interaction and contends that Birnbaum's model theory can provide higher education leaders with the mechanisms for organization-specific decision-making and planning. She explains the tri-governance structure (faculty, administration, trustees) of shared governance, in which leaders must function while addressing the challenges of multiple organizational (cultural) models, as well as contextual considerations, such as enrollment and financial constraints.

Douglas (2013) notes that traditional leadership theories focus upon models of leadership within the business or corporate world and therefore apply more specifically to men, who in the past dominated the corporate, government, and military leadership roles. Further, she states that the leadership theories tend to focus upon the traits of an individual leader. The author identifies seven categories of leadership literature: 1) trait, 2) power and influence, 3) transactional and transformational, 4) behavioral, 5) contingency, 6) cultural and symbolic, and 7) cognitive.

Douglas (2013) explains that trait theory studies, again, tend to apply to the business, industry and corporate world, the government, and the military--areas in which women and minorities have rarely served as leaders. Often called "Great Man" theories, they examine leadership in terms of the traits or characteristics of the individual leader; however, over time, these theories have not proven to be effective measures of leadership effectiveness (Birnbaum, 1988; Douglas, 2013). According to Douglas (2013), power and

influence theories can be divided into social power and social exchange theories. She adds that social power leaders take an independent approach to leading, communicating with and influencing their followers, whereas social exchange leaders have a reciprocal, supportive leadership and communication relationship with their followers, the latter of whom may, in turn, influence the leaders themselves. Although Birnbaum (1989) found that social power theories may lend some understanding of the leader-follower relationship at the upper administrative level of a higher education institution, Douglas (2013) maintains that these theories do not assist in the understanding of effective leadership in a situation where “power and authority is vested in the professional core (faculty) of an organization” (p. 42). She contends that social exchange theories, on the other hand, could be useful in a study of higher education leadership because the professional authority of the faculty disperses power, placing limitations on executive power.

Douglas (2013) notes that transactional and transformational leadership theories are based upon power and influence leadership approaches. Transformational leadership is often couched in terms of a leader’s “charisma,” whereas transactional leaders experience a relationship with followers based upon an “exchange,” which could be financial reward or simply approval (Douglas, 2013; Shriberg & Shriberg, 2011). Douglas (2013) suggests that both of these leadership approaches use influence to effect change; however, transactional leaders use bargaining and negotiation to achieve results, and transformational leaders “are able to influence and motivate others to exceed performance expectations by creating a shared vision and instilling employee confidence” (p. 43). She adds that the transformational leadership style is ineffective in the higher

education environment where leaders are expected to coordinate the routine affairs of the institution, not to design courageous new visions.

Douglas (2013) explains that behavioral theorists view leadership effectiveness from the leader's ability to accomplish organizational and departmental goals; however, these theories fall short in addressing the unique characteristics of academic culture and how it impacts leadership effectiveness. She notes that situational leadership arises from contingency theories, which view leadership behavior from situational variables. These variables include 1) follower characteristics, 2) task characteristics, and 3) organizational or external environment factors/characteristics. Douglas states that the contingency theory suggests that situational factors may effectively nullify a leader's actions or relationships with subordinates, thereby reducing the ability of a leader to affect employee job satisfaction. She suggests that because this theory is especially relevant to situations where informal leaders may appear from the "follower" ranks, it is particularly applicable to higher educational leadership and could provide a framework for future studies in this area.

Cultural and symbolic theories can be particularly useful to the higher education leader, who must create meaning in an intricate, ambiguous, and transitory environment (Douglas, 2013). Birnbaum (1998) concurs, stating that leaders in colleges and universities can have a crucial impact upon an institution's symbolic existence, and a leader who can create and interpret the institutional "myth," by telling stories of student success, etc., may have more power and influence over faculty behavior than a transactional or even a transformational leader who tries to convince them to start a new

program. In a normative organization, says Birnbaum, the leader's role is to shed light, not to provide specific direction.

Finally, Douglas (2013) notes that cognitive theories align with Birnbaum's cybernetic model of organizational culture and position leadership behaviors within the organizational environment, leader/follower behaviors, and "past social and symbolic experiences of members" (p. 45). Within this theory, says the author, leaders who are able to reflect upon actions, thoughts, and experiences and adapt them to the environment are more likely to be effective. Birnbaum (1988) likewise sees effective leadership as defined by the complexity of the leader's cognitive abilities.

Northouse (2010) reviews and analyzes various leadership theories by describing how they can be applied in "real-world" organizations. Northouse analyzes the trait, contingency, cultural, and transformational theories (2010). However, he places situational leadership theory outside of contingency theory, describing it, instead, in terms of a leader's ability to gauge followers' levels of development within given situation and act accordingly. Northouse (2010) positions transactional leadership under the psychodynamic approach, using psychoanalytic theories to explain the leader/follower transactional relationship. His discussion of culture and leadership focuses broadly upon global culture and leadership (multi-cultural approaches), rather than organizational culture and symbolism, making it less applicable to a typical higher education setting in the United States, particularly a typical community college (Northouse, 2010). Northouse does devote an entire chapter to women in leadership, including a discussion of the "glass ceiling," which has implications for women in higher education leadership who aspire to presidencies (2010). However, while this discussion

does provide a better understanding of gender equity in leadership and the perspectives of women in leadership roles, it does not review a specific theory of female leadership nor of applicability (Northouse, 2010).

Kezar, Carducci, and Contreras-McGavin (2006) look specifically at leadership in higher education, and they approach it from three “worldviews,” or paradigms—social constructivism, postmodernism, and critical theory—that they contend have changed leadership over the past two decades. First, they contend that leadership is socially constructed, that it is affected by organizational culture and context and is always evolving. Within the social constructivism view, the leader’s perspective helps shape the nature of the context, dominant individuals within a group may impact the perspective of leadership for that group, and normative beliefs and values affect all perceptions. The authors state that postmodernism focuses upon personal and historical perspectives and experiences, as well as organizational history and context. It is mainly concerned with the agency of the individual within the leadership process, meaning the individual’s agency to control his or her own existence. Finally, the critical theory paradigm looks at power dynamics, especially oppressiveness or abuses of power. It admits the hierarchical nature of higher education and the manner in which its traditions can depress leadership actions and approaches (Kezar, Carducci, & Contreras-McGavin, 2006).

Policy implementation theories. In her comprehensive reference work titled *Policy Studies for Educational Leaders*, Fowler (2004) devotes a chapter to the carrying out of policy. This chapter, “Policy Implementation: Getting People to Carry out a Policy,” first emphasizes that implementing policy is not easy and should not be taken for granted by educational administrators, all of whom will find it necessary to lead their

institutional constituents through change processes initiated by new policies. The chapter provides insight into implementation processes, as well as concise, direct advice for leaders charged with carrying out an implementation, even those who may wish to resist it, themselves.

Fowler defines policy implementation as “the stage in the policy process in which a policy formally adopted by a governmental body is put into practice” (2004, p. 270). She then provides clarification regarding implementers, noting that “formal implementers” are “the government officials who have the legal authority to see that a new policy is put into effect,” whereas “intermediaries” are “implementers to whom the formal implementers delegate the responsibility to help with implementation” (2004, p. 270). According to Fowler, the success of an implementation is dependent upon the formal implementer’s ability to cultivate and nurture within the intermediaries both the will (or desire) and the capacity (or ability) to implement the policy.

Generations of research. Fowler describes two generations of implementation research within the increasingly important field. She notes that both generations of research continue to be relevant today. The first generation of research is concerned with the difficulties inherent in implementation processes, which can be attributed to a number of factors, from political to cultural. The author notes that failure to consider school culture contributes to the failure of the majority of education reforms and cites cultural and policy inconsistency as one among five major reasons for implementation failure. Other contributing factors are lack of understanding on the teachers’ part regarding the change, teachers’ lack of skills and knowledge needed to facilitate the change, and lack of resources (materials and time) needed to implement the change. Fowler adds that these

four factors contribute to the final, fifth reason why implementations fail: “The teachers [become] discouraged and [lose] their motivation to implement” (Fowler, 2004, p. 273). She notes that despite the availability of 30 years of research, implementers still make these fundamental errors today, making the first generation research findings as relevant now as before.

Fowler (2004) explains that while the first generation of policy research focuses upon why implementations fail, the second generation of research also investigates why some succeed. She describes the Huberman and Miles (1984) study that categorized 12 schools according to how successfully they had implemented educational policy. The schools were deemed highly successful, relatively successful, relatively unsuccessful, or unsuccessful in their respective implementations (as cited in Fowler, 2004). In the highly successful schools, administrators initiated and strongly advocated for new policies. Although they did exert pressure to implement the policies, they also provided support and resources to the principals and teachers. At the relatively successful schools, the teachers championed the change and committed a great deal of time to the implementation. In these schools, the administration did not exert pressure to implement the policies, nor did they provide assistance in the way of support or resources. At the relatively unsuccessful institutions, the administrators were initially supportive of the modest policies but their engagement dwindled after the implementation. They did not provide support and were readily agreeable to reducing the initiatives when approached with requests to do so. Consequently, the implementations never really took place. At the unsuccessful institutions, administrators were not supportive of the policies from the outset and did not prepare for implementation nor provide support for it. As a result,

resistance to the policies developed, and the implementation failed. However, because the administrators, from the beginning, did not support the policies that ultimately failed at their institutions, the researchers concluded that they had been successful in preventing the implementation of bad policies.

Second generation research reiterates that “Many policies—perhaps most—are never really implemented” (Fowler, 2004, p. 277) and policy-makers should not assume that intermediaries will implement policies simply because they are mandated. On the other hand, says the author, second-generation research further demonstrates that policies can be effectively implemented, and it explains why some implementations are successful and others are not.

Implementation strategies. Fowler (2004) devotes a considerable portion of her chapter to an explanation of how to effectively implement a policy. She begins this section with a discussion of mobilization as it applies to implementation and emphasizes its importance to the success of the initiative. The author explains that institutional leaders who are considering policy implementation should ask themselves three crucial questions before moving forward. Those questions focus upon the reasons or motives behind the policy implementation, whether or not the policy is a good fit for their institution, and whether or not the primary implementers have bought into the policy and support it.

Once the administration has determined that a policy should be implemented, Fowler says that planning is the next step in the process. She again emphasizes the importance of this step and then gives direction as to who should be involved in the planning process and shares a specific planning technique, “forward mapping” (2004, p.

282) that can assist leaders with navigating the planning phase of the implementation. Finally, she explains that the third phase of mobilization, the assemblage of resources, is critical to implementation success, noting that studies have shown that approximately two-thirds of all issues that occur during an implementation are related to lack of resources. She discusses the resources needed by category: money, time, personnel, space, and equipment/materials.

Fowler notes that once the mobilization “foundation has been laid” (2004, p. 286), the implementation itself can begin. She examines the implementation from two separate viewpoints: chronological and cross-cutting themes. Under chronological implementation, the author discusses both the early and late stages of implementation, explaining the early stage is typically difficult and that even well-planned implementations will experience issues during this phase. In some cases, the front-line implementers may become so discouraged that leaders will respond by scale-back the implementation. Fowler quotes Huberman and Miles (1984), who gave a name to this reactive process, calling it “midgetizing” (as cited in Fowler, 2004, p. 11). Fowler notes that the success of late implementation is largely dependent upon the success of the early phase. She adds that the measure of success in the late phase is the “genuine change” (2004, p. 287) in the policy. The author outlines the attendant results for both failed and successful or “midgetized” implementations. Failed implementations generally result in disappointment, anger and resentment among frontline implementers, who often experience burnout and consequently return to earlier habits. Trust in administrators is eroded, and leaders may face even more resistance when attempting to implement future policies. According to Fowler, midgetized implementations mature earlier, in

approximately 5-6 months, whereas successful implementations take longer to reach maturation, about 18 months. However, both produce similar results, with implementers having reached a stage of comfort with the policy, expressing pride in their achievements regarding it, and beginning to adapt it for other initiatives. The author notes that the implementation will still experience some issues at this late stage, though they are generally fewer and not as serious as in the early phase.

In addition to the chronological viewpoint, Fowler (2004) discusses the implementation itself in terms of “cross-cutting themes” (p.288), monitoring and feedback, ongoing assistance, and problem-coping. In the monitoring and feedback area, the author explains the necessity of a project director or other position that watches over the implementation, coordinates it, and helps guide it. However, while this position is important, it is still incumbent upon administrators to continue to be involved, present and engaged and to exert the necessary pressure to insure a successful implementation.

The ongoing assistance area is directly connected to support, not only during the mobilization phase but throughout the implementation. Feedback on needs should be solicited and relevant assistance provided to front-line implementers (Fowler, 2004). This area of the implementation is related to the tactical powerlessness sub-dimension of Tummers (2010) theory of policy alienation, wherein a public professional (front-line implementer) might contend that he or she was not consulted during the design phase of the policy implementation process. However, Tummers (2010) found that public professionals are not as concerned with influencing the implementation model as they are with the perceived value of the policy itself.

Finally, within the problem-coping area, Fowler (2004) explains that leaders should be diligent about identifying and addressing problems as they develop, whether they are program related, people related, or setting related. She adds that leaders have at their disposal three types of coping strategies: technical, political, and cultural, and that while the technical strategies are typically the most useful, “Good education leaders thoughtfully employ a mixture of all three” (Fowler, 2004, p. 291).

After the early and late stages of implementation comes institutionalization, the stage at which a policy “has been seamlessly integrated into the routine practices of the school or district” (Fowler, 2004, p. 292). Fowler notes that institutionalization does not occur in isolation; rather, it coincides with late implementation. During late implementation, administrators and project leaders should be cognizant of any signs of institutionalization and capitalize upon them, by adjusting customary procedures to fit the new policy, for example. The author further states that it is necessary to establish the policy as part of the regular budget, even if it has been previously funded by grants, in order for it to become completely institutionalized and implemented.

Policy opposition. The final section of Fowler’s (2004) chapter focuses upon the implementation of unpopular policies. Frequently, administrators or outside entities impose policies upon the institution that implementers within the organization dislike. Such opposition to policies can be challenging for leaders to navigate, particularly if they, too, are not proponents of the policies in question. Fowler discusses why certain policies meet with opposition, what issues may arise with policy resistance, and how leaders can cope with policy resistance. The policy opposition section of Fowler’s chapter is very relevant to the framework for this study, Tummers (2010) explanatory theory that

examined the willingness of public professionals to implement policy, with “policy alienation” as the central concept. Tummers defines policy alienation as “a sense of social estrangement, and absence of social support or meaningful connection” (2010, p. 6). Gouldner’s (1954) findings also support many of Fowler’s (2004) contentions regarding policy opposition.

Fowler (2004) notes that implementers may resist policies as a matter of self-interest, particularly if they perceive that the policies “threaten their job security, chances for promotion, or status in the workplace” (p. 293). She adds that if implementers feel their established working conditions or pay rate may be threatened as a result of the implementation, they may express resistance. Gouldner (1954) likewise found that the successful implementation of “bureaucratic efforts” (p. 235) depends largely upon the level of resistance demonstrated by the implementers. Like Fowler (2004), Gouldner (1954) found that “injured or impaired” (p. 236) job status contributed to resistance. While Tummers’ (2010) study does not address implementer job security, promotion, status, or compensation, it does indirectly address working conditions from the autonomy perspective. Tummers found that “lower perceived autonomy indeed lowered change willingness” (2010, p. 17). Since educational professionals are accustomed to a certain level of autonomy in the workplace, if a change in working conditions as a result of policy implementation affects implementer autonomy, Tummers’ (2010) findings align with Fowlers’ in that area. However, aside from the area of autonomy, in contrast to Fowler (2004) and Gouldner (1954), Tummers’ (2010) findings indicate that public professionals’ resistance to policies has very little to do with self-interest.

Fowler (2004) contends that implementers are likely to resist policies that are inconsistent with their own professional values, concluding that educators are strongly committed to their professional values and will not yield them up without resistance and, further, that such implementer commitment to professional values is the core reason for many failed policy implementations. Neither Gouldner (1954) nor Tummers (2010) focused their studies upon educational professionals, but their findings were similar to Fowler's in that values play a significant role in implementers' choices to accept or resist new policies. Gouldner (1954) found that workers will embrace new policies only if those policies are both "capable of achieving desired results, and...morally appropriate or 'right'" (p. 234). Tummers (2010) found that "change willingness of implementing professionals is...dependent on the perceived added value of the policy for society or their own clients" (p. 17) and that professionals who are highly committed public servants may be even less open to implementing a policy of little societal value.

When resistance to a policy implementation does occur, it can be demonstrated by implementers through several means (Fowler, 2004). Fowler explains that a resistant implementer may weigh the consequences of resistance and merely choose to comply. In Gouldner's mock bureaucracy example, a similar occurrence took place: workers who disagreed with a no-smoking policy simply ignored it (Gouldner, 1954). If compliance does not seem feasible given the values conflict that the individual is experiencing, he or she may choose to voice an opinion about the issue by addressing the issue with those in charge of the implementation. If this method of opposition is unsuccessful, the next option may be for the individual to exit, or leave, the organization or department undergoing the implementation, either through retirement, resignation, or moving to an

area of the organization where the implementation is not relevant. Dissenters who decide against leaving may express their resistance to the policy through disloyalty in the form of token or delayed compliance, a means of sabotaging the implementation and insuring its failure.

Despite the unethical nature of implementation sabotage and the inherent risks involved, some resistant implementers will still employ sabotage strategies. However, Fowler (2004) provides some practical methods for leaders who must deal with implementer resistance. First, leaders should create a participative implementation process that includes representatives from primary implementer stakeholder groups. If this process fails to curb the resistance, leaders may try to persuade resisters by eliciting the exact nature of their concerns and furnishing information that may help to allay those concerns. Alternatively, leaders may choose to adapt the policy to dispel some of the concerns from those who oppose the implementation. Finally, leaders may choose to bar from the implementation those who strongly dissent. However, leaders must be cautious about executing this last approach, as it can backfire by making the leader appear “heavy-handed” (Fowler, 2004, p. 295) and the dissenter appear as the “underdog.”

In wrapping up her chapter, Fowler discusses the potential negative career and personal consequences for school leaders who resist implementing policies that they find objectionable. She adds that while such resistance may be warranted, leaders should carefully consider several possibilities. First, they should ask themselves if the policy is simply symbolic. If so, it may meet with extensive opposition, and the leader may be able to exhibit discreet noncompliance until the policy is no longer viable, as such policies are rarely implemented successfully and are, therefore, short-lived. On the other hand, says

Fowler, if the policy is a viable one, “motivated by substantive reasons” (2004, p. 297), the leader should carefully consider his or her own reasons for dissent. Positive reasons for opposition are those that are values-driven, whereas opposition driven by motives of self-interest can result in harm to the organization and the person who is resisting the implementation.

Fowler adds one last caveat—that leaders should consider whether expressing their opposition to what they consider an ill-conceived policy will result in substantial change to the policy or the implementation thereof. She notes that in some instances resistance will inhibit implementation, while at other times, it will not. However, there are times when “resisting to make a point and defend an important principle may still be right. Or engaging in quiet token compliance...may be wiser” (Fowler, 2004, p. 297).

Summary of existing literature

The literature reviewed herein reveals the significance and scope of the complex issues surrounding developmental education, including the severity of the barriers affecting developmental student success and completion and shifting legislative funding priorities and increased accountability requirements. The literature clearly indicates the need for innovation and change if educators are to continue to serve underprepared students who wish to attend college. However, change in higher education rarely comes swiftly or easily. As noted by Birnbaum (1988), higher education culture is distinctive and generally not subject to manipulation by administrators—or, in the case of legislative mandates, bureaucrats. Keup, Walker, Astin and Lindholm (2001) note that resistance to planned change is often overlooked in organizational transformation, yet it is an integral part of the change process.

In her study of state policy implementation related to developmental education, Banuelos (2011) examined how policy formulation addressed community college students in developmental education. Among her findings was a recommendation to extend similar research to other states. This study extends the study of developmental education policy to Missouri and Connecticut. Fowler's (2004) study provides practical implementation guidelines for policy implementers. In addition, by examining faculty perceptions of state-mandated education reforms within the constraints of academic culture and its concomitant resistance to change, this study fills a gap in higher education change and leadership literature.

Chapter 3: Methods

Rationale

Four philosophical assumptions, or paradigms, guided the researcher's choice to use qualitative methodology for this study. The ontological assumption provides for the reporting of different themes in the discussion of the researcher's findings; the epistemological assumption gives the researcher reliance upon participant quotes to provide evidence; the axiological assumption allows the researcher to openly discuss values that shape the narrative and to give his or her own interpretations of the evidence, and the methodological assumption uses an inductive, emerging procedure to collect and analyze the data (Creswell, 2013). The aforementioned paradigms are appropriate to the parameters of this study, which will report themes, rely upon participant quotes, discuss values, and use inductive analysis. Further, qualitative methodology provides a solid foundation for inquiry involving the "human instrument" (Merriam, 2009, p. 15); has as its goal discovery, description, and understanding, rather than hypothesis testing or prediction; and involves a small, usually non-random, purposeful sample (Merriam, 2009). Therefore, it is well-suited to study of a process that involves a limited number of stakeholders involved in developmental education policy implementation processes occurring at two community colleges.

Tradition of Inquiry: Case Study

This research used a qualitative, comparative multiple case study approach. Creswell (2013) identifies case study as a methodology, "a type of design in qualitative research that may be an object of study, as well as a product of inquiry" (p. 97). Like other qualitative research methods, the focus of case study is the search for meaning and

understanding. However, case study focus differs in that it is “particularistic” in its focus upon “a particular situation, event, program or phenomenon” (Merriam, 2009, p. 43)...or an “in-depth description and analysis of a bounded system” (p. 40). In this instance, the bounded system is the implementation of developmental education legislative policies at two community colleges.

Unit of analysis. The defining characteristic of a case study is the delimitation of the object to be studied, the “what” (or “case”) that is to be studied, “some phenomenon, a program, a group, an institution, a community, or a specific policy” (Merriam, 2009, p. 40). Yin (2014) suggests that to help correctly identify the unit of analysis for a case study, it is useful to indicate not only the primary group or topic that represents the case but also the “specific time boundaries,” such as the “life cycle of the entity” (p. 33). The unit of analysis for this case study encompasses Connecticut and Missouri elected and appointed higher education officials, community college executive and instructional administrators, and community college faculty who teach developmental education coursework and their relational behaviors during the life cycle of the developmental education policy itself, from legislative inception through institutional implementation. The focus upon a unit of analysis sets case study apart from other types of qualitative research and makes it a good methodological choice for problems that may occur in daily life (Merriam, 2009), such as overcoming resistance to change within organizations.

Research questions. In addition, Yin (2014) suggests that “how” or “why” research questions may be indicators that case study is an appropriate methodology for a study “deal[ing] with operational links needing to be traced over time” (p. 10). For this

study, the central research question and accompanying sub-questions (below) were “how” questions that consider such linkages.

Central research question: How do community college faculty perceptions of their involvement in the design of developmental education legislation and policies, as well as their perceptions of their involvement in the policy implementation process, affect their willingness to implement instructional change?

Sub-questions:

1. How do community college faculty perceive their level of involvement in the drafting of developmental education legislation?
2. How do community college faculty perceive their level of involvement in the design of the policies resulting from the legislation and the implementation process?
3. How do community college faculty perceive their degree of choice in the implementation process at their institution?
4. How do community college faculty perceive the value of the policy to improvement of developmental education outcomes in their state?
5. How do community college faculty perceive the effects of the policy on students?

Sampling Method

Merriam (2009) notes that qualitative case study methodology typically requires two levels of sampling. First, the case itself must be selected; then, the researcher must select a sample within the case. Two community colleges that are currently implementing 2012 state legislative mandates regarding the delivery of developmental education in their respective states provided the cases for this multiple case study. Purposeful sampling has

as its foundation the premise that “the investigator wants to discover, understand, and gain insight and therefore must select a sample from which the most can be learned” (Merriam, 2009, p.77). A purposeful sample allows the researcher to decide what criteria distinguishes the participants from one another and then to select the participants for the sample based upon those criteria. Because the developmental education legislation affected faculty in three instructional areas—mathematics, writing, and reading—a sample was needed that represented the diverse perspectives from faculty in all three departments. Therefore, a purposeful sample was used to represent these varying stakeholder groups. In addition, purposeful sampling method allowed the researcher to select participants based upon the study’s purpose (Merriam, 2009).

The purpose of this multiple case study was to describe and interpret the perceptions of developmental education faculty regarding their level of involvement in developmental education legislation implementation processes in their respective states in order to determine how this level of involvement may affect faculty willingness to implement instructional change. With this criterion in mind, a purposeful sample was selected based upon the participants’ status as developmental education faculty at community colleges that were involved in implementation of the 2012 developmental education mandates in their states.

In qualitative studies, frequencies are not as important as in quantitative research. Mason (2010) notes that because qualitative research focuses upon making meaning, extensive data collection does not necessarily provide new insights, stating that, often, “one occurrence of a piece of data, or a code, is all that is necessary to ensure that it becomes part of the analysis framework” (p.1). The author adds that the labor-intensive

nature of qualitative research does not lend it to collection and analysis of large amounts of data. He notes that the samples for qualitative research must be large enough to insure coverage of diverse opinions on the topics. Generally, the qualitative principle of saturation should be considered, wherein the researcher collects data and analyzes until no new insights are uncovered (Mason, 2010).

However, sample size in qualitative research is also governed by the nature of the study itself. Morse (2000) notes that "the scope of the study, the nature of the topic, the quality of the data, [and] the study design" (p.6) can influence the researcher's choice of sample size. Merriam (2009) concurs, noting that multiple factors contribute to the determination of the size of the sample within a case. Further, as noted earlier, the researcher should establish criteria to guide the sampling process in case studies (Merriam, 2009). The criteria for sample selection in this study included faculty in three developmental education areas: mathematics, English (writing), and reading. In keeping with the parameters of Public Act No. 12-40 (Connecticut State Senate, 2012), reading is currently integrated with gateway writing courses in Connecticut. Because writing and reading are integrated at the Connecticut institution, the sample design included all current full-time faculty at each institution who taught developmental education (prior to the implementation of the 2012 legislative mandates) in mathematics, writing, and reading at the Missouri institution and mathematics and writing/reading at the Connecticut institution. Correlatively, four subject areas are represented in the sample design chart (Table 3.1): mathematics, writing, reading, and writing/reading. All full-time faculty who were available to participate at each institution were interviewed. Adjunct faculty tend not to be involved in policy implementation processes at most higher

education institutions; therefore, full-time faculty participants were given preference in the sample selection. Because insufficient numbers of full-time reading faculty were available for interview at the Missouri institution, an adjunct faculty member was included in the sample to achieve the minimum number of participants noted in the sample design chart (Table 3.1).

The developmental mathematics sequence presents particular barriers to student completion, and more students are placed into developmental math than reading. A study by Bailey, Jeong, and Cho (2009) indicated that fifty-nine percent of students entering college were referred to developmental math coursework, compared to thirty-three percent for reading. Of those students who enrolled in developmental mathematics, approximately one-third completed the entire developmental math sequence (Bailey, Jeong, & Cho, 2009). Because of the crisis situation with developmental math, more developmental mathematics instructors were interviewed than either reading or writing instructors. The participant sample design included a minimum of 6 math faculty, 2 reading faculty, 2 writing faculty, and 4 writing/reading faculty. The researcher interviewed 8 math faculty, 2 reading faculty, 2 writing faculty, and 4 reading/writing faculty. Access to prospective participants was gained with the aid of a gatekeeper at each community college. Creswell (2007) identifies the gatekeeper as “the individual the researcher must visit before entering a group or cultural site. To gain access, the researcher must receive this individual’s approval” (p. 243). The gatekeeper approvers were not interviewed.

Table 3.1 illustrates the sample design and final participant sample.

Table 3.1.*Sampling Design and Participant Sample*

Sampling Design					
	Developmental Math Faculty	Developmental Writing/Reading Faculty	Developmental Writing Faculty	Developmental Reading Faculty	Number of Participants
Connecticut	3+ full-time/adjunct	4+ full-time/adjunct			7+
Missouri	3+ full-time/adjunct		2+ full-time/adjunct	2+ full-time/adjunct	7+
Total # of Participants	6+	4+	2+	2+	14+
Participant Sample					
	Developmental Math Faculty	Developmental Writing/Reading Faculty	Developmental Writing Faculty	Developmental Reading Faculty	Number of Participants
Connecticut	4 full-time	4 full-time			8
Missouri	4 full-time		2 full-time	1 full-time/ 1 adjunct	8
Total # of Participants	8	4	2	2	16

Data Collection

Data was collected from individual 45-60 minute interviews conducted at a Connecticut and a Missouri community college. The study used Creswell's step-by-step reflexive interview model (2013, pp. 163-166) to allow for researcher adaptability to the interviewing situation. Open-ended interview questions were developed using five of Patton's (2002) six question types as a foundation:

- Experience and behavior questions
- Opinions and values questions
- Feeling questions
- Knowledge questions
- Sensory questions

- Background/demographic questions (as cited in Merriam, 2009, p. 96).

Sensory questions were not relevant to this study; therefore, the sensory question type was not utilized. The interview questions were used flexibly, allowing deeper exploration and change of topic direction according to participant responses. Table 3.2, below, illustrates the relationships among the study's framework, research question and sub-questions, and interview questions.

Table 3.2.

Framework/Research Questions/Interview Questions Relationships

Research Question: How do community college faculty perceptions of their involvement in the design of developmental education legislation and policies, as well as their perceptions of their involvement in the policy implementation process, affect their willingness to implement instructional change?		
Tummers* — Sub-Dimensions	Research Sub-Question(s)	Method--Interview Question(s)
<p><i>Strategic Powerlessness</i></p> <p>“The perceived influence of the professionals on decisions concerning the content of the policy as is captured in rules and regulations” (Tummers, 2010, p. 7)</p>	How do community college faculty perceive their level of involvement in the drafting of developmental education legislation?	<p>1. To what degree were you aware of what was happening in state policy related to developmental education prior to the implementation?</p> <p>(Probes: If you were aware, how did you become aware of what was happening? How do you feel about how you were/were not aware of what was happening?)</p> <p>2. How were you involved in drafting the developmental education policies resulting from the passage of HB1042/SB40?</p> <p>(Probes: How do you feel about how you were/were not involved? If you were involved, how do you feel about the manner in which the statewide policy development process was conducted?)</p>
<p><i>Tactical Powerlessness</i></p>	How do community college faculty perceive their level of involvement in the design of the policies resulting from the	3. How were you involved in drafting the developmental education policy implementation

<p>“The professionals’ perceived influence on decisions concerning the way the policy is implemented within their own organization” (Tummers, 2010, p. 7)</p>	<p>legislation and the implementation process?</p>	<p>process resulting from the passage of HB1042/SB40?</p> <p>(Probes: How do you feel about how you were/were not involved? If you were involved, how do you feel about the manner in which the implementation process was drafted?)</p>
<p><i>Operational Powerlessness</i></p> <p>“The perceived degree of freedom in making choices concerning the sort, quantity and quality of sanctions and rewards when implementing the policy” (Tummers, 2010, p. 7)</p>	<p>How do community college faculty perceive their degree of choice in the implementation process at their institution?</p>	<p>4. What was the timeline for the institutional implementation process?</p> <p>5. Can you describe for me your involvement in the institutional implementation process?</p> <p>6. How do you feel about your role in the institutional implementation process?</p>
<p><i>Societal Meaninglessness</i></p> <p>“The perception of professionals concerning the added value of the policy to societally relevant goals” (Tummers, 2010, p. 7)</p>	<p>How do community college faculty perceive the value of the policy to improvement of developmental education outcomes in their state?</p>	<p>7. Please share with me how the 2012 developmental education legislation changes the delivery of developmental education in your state.</p> <p>8. How do you think these changes will affect developmental education outcomes in your state?</p>
<p><i>Client Meaninglessness</i></p> <p>“The professionals’ perceptions of the added value of their implementing a policy for their own clients” (Tummers, 2010, p. 7)</p>	<p>How do community college faculty perceive the effects of the policy on students?</p>	<p>9. How do you think the policy changes will affect students in your developmental education courses?</p>

The interviews were digitally audio-taped, and the audio tapes were transcribed verbatim by research assistants. Transcription protocol followed that illustrated by Merriam (2009, pp. 110-114), and transcriber confidentiality agreements were obtained. Additional data was mined from legislative bills, meeting minutes, policy documents, and other public artifacts to provide context-setting and other information for the study.

Data Analysis Methodology

First cycle coding. To address the research sub-questions, the researcher began by employing First Cycle, provisional coding (Saldaña, 2013). Saldaña (2013) indicates that provisional coding “is appropriate for qualitative studies that build on or corroborate previous research or investigations” and are “generated from such preparatory investigative matters as...the study’s conceptual framework and research questions” (p. 144). Creswell (2013) recommends “lean coding,” starting with five or six categories and expanding to no more than 25-30 emergent categories, then reducing those categories into five or six themes (pp. 184-5). In this study, five provisional codes (categories) were established based upon Tummers’ (2010) theoretical framework and this study’s five corresponding research sub-questions. Table 3.3 illustrates that relationship:

Table 3.3.

Tummers’ (2010) Sub-dimensions with Correlating Sub-questions/Provisional Codes

Tummers’ Sub-dimension	Research Sub-question(s)	Provisional Code
Strategic Powerlessness (Power)	How do community college faculty perceive their level of involvement in the drafting of developmental education legislation?	Policy-making Influence
Tactical Powerlessness (Power)	How do community college faculty perceive their level of involvement in the design of the policies resulting from the legislation and the implementation process?	Workgroup Influence
Operational Powerlessness (Power)	How do community college faculty perceive their degree of choice in the implementation process at their institution?	Institutional Influence
Societal Meaninglessness (Meaning)	How do community college faculty perceive the value of the policy to improvement of developmental education outcomes in their state?	Developmental Education Value
Client Meaninglessness (Meaning)	How do community college faculty perceive the effects of the policy on students?	Student Benefit

From these five provisional codes, emergent sub-code categories were established, which were then organized into themes. Creswell (2013) states that “[C]ounting conveys a quantitative orientation of magnitude and frequency contrary to qualitative research. In addition, a count conveys that all codes should be given equal emphasis, and it disregards that the passages coded may actually represent contradictory views” (p. 185). Therefore, frequency of code occurrence within each category is not reported in this qualitative study.

Second cycle coding. Saldaña (2013) states that Second Cycle coding methods “are advanced ways of reorganizing and reanalyzing data coded through First Cycle methods” (p. 207). This researcher used Second Cycle coding to revisit the original codes to discover the answer to the study’s main research question, “How do faculty perceptions of state-legislated developmental education policies and their involvement in the policy implementation affect their willingness to implement instructional change?” In the second cycle, provisional codes were again implemented; however, data were coded in only two categories: Change Willingness and Change Resistance. Instances were identified in which a clear faculty willingness to implement change or to resist implementation was indicated. Sub-codes that emerged were then correlated to Tummers’ sub-dimensions. In alignment with the first cycle coding methodology, frequency of code occurrence (Creswell, 2013) within each second cycle coding category was not reported in this qualitative study.

Verification

For case studies, Creswell and Miller (2000) recommend member checking—participant reviews of findings to corroborate accuracy—as a validation method. In addition to member checks, this study used rich, thick description—a key element of qualitative research that can provide validation by placing the reader within the setting and allowing him or her to share in the experience of the case (Creswell, 2007). Further, possible biases were disclosed via researcher reflexivity—researcher reflection upon any biases, values or beliefs he or she brings to the study. This disclosure creates a more open reader environment and allows readers to “bracket” researcher biases as they consider the findings (Creswell & Miller, 2000, p. 5.2). Stake (1995) confirms disclosure of researcher bias as a method of validation for case study, stating that to assist in the validation of the naturalistic generalizations that occur in case study, the researcher can make available to the reader information about himself/herself and “other sources of input” (p. 87). Researcher reflexivity is covered in Chapter 5, under the “Limitations” section.

Creswell (2013) emphasizes the role of participants in qualitative research and the correlating need to empower them in the process. In addition to sharing participant narratives and “hear[ing] their voices” (Creswell, 2013, p. 48), the researcher “may collaborate directly with the participants...during the data analysis and interpretation phases of the research” (Creswell, 2013, p. 48). Through this member checking validation process, Creswell (2007) recommends asking research participants to “reflect on the accuracy...of the preliminary analyses consisting of description or themes” (p. 209). To empower the participants in this study and validate the findings, the researcher submitted the preliminary themes to all participants for comment and requested verification of

demographic data collected from interview questions. Sixty-seven percent of the Connecticut participants and thirty-three percent of the Missouri participants responded to member checking requests for feedback. All respondents indicated that they agreed with the preliminary themes. Table 3.4 illustrates the participant responses and researcher action taken.

Table 3.4.

Preliminary Themes: Member Checking Results

<i>Connecticut Participant Responses</i>		<i>Action Taken</i>
Participant #1	Participant commented, "Correct."	No action required
Participant #2	Participant clarified demographic information and commented, "The rest seemed accurate."	No action required
Participant #3	Participant clarified demographic information and commented, "I think that your dissertation study looks accurate in all areas. I do not wish to add anything to it."	No action required
Participant #4	Participant commented, "All looks very good."	No action required
<i>Missouri Participant Responses</i>		<i>Action Taken</i>
Participant #1	Participant commented, "Your conclusions and your demographic information are both correct."	No action required
Participant #2	Participant clarified demographic information and commented that it was "the only update."	No action required

Analysis of the data included "thick" descriptions (Creswell, 2007) of the two cases from the Missouri and Connecticut community college faculty interview findings. The descriptions/findings are followed by analysis that results in "naturalistic generalizations" (Creswell, 2013, p. 200), as they relate to Tummers' (2010) theory of policy alienation and change willingness.

Ethical Considerations

Consistent with research protocol ethics, permissions were obtained from the Institutional Research Board at the University of Nebraska—Lincoln. In advance of the interview,

interviewees were provided with an informed consent form for their review and signature. The consent form outlined the parameters of the project and the interview, including the interview procedures; associated risks and/or discomforts (none); benefits of participation; details of how confidentiality will be maintained; opportunity to ask questions; freedom to withdraw; consent, right to receive a copy; and researcher contact information. In addition to maintaining confidentiality in data collection and storage, the researcher used pseudonyms to protect participant confidentiality, and specific job or organization titles were not used. Appendices to the study include the Institutional Research Board (IRB) approval, Informed Consent Forms, Interview questions and protocol, and transcriptionist confidentiality agreement and conflict of interest form.

Chapter 4: Findings

Restatement of Research Focus

As stated in Chapter 1, students needing remedial coursework, on the whole, have not experienced success. Nationwide, only 25% or fewer of these students ultimately complete a degree or certificate (Attewell, Lavin, Domina, & Levey, 2006; Paulson, 2012). In response, many states have passed legislation that mandates developmental education best practices interventions and initiatives (Banuelos, 2011). In 2012, the legislature of the State of Connecticut adopted Substitute Senate Bill 40, now Connecticut Public Act 12-40 (PA 12-40). Connecticut Public Act 12-40 requires embedded remedial support in gateway coursework, intensive college readiness programs, and the use of multiple measures of assessment (Connecticut State Senate, 2012, Sections 1b-1c). In the same year, Missouri passed House Bill 1042 (HB 1042), which requires that all two- and four-year public higher education institutions in Missouri 1) identify and implement best practices in delivery of developmental education, and 2) report annually regarding campus-level student persistence data, as well as data regarding implementation (National Council of State Legislatures, 2014a; Missouri House of Representatives, 2012).

Although these initiatives are required by law, their ultimate success may be determined in part by the level of engagement of the front-line implementers, the faculty themselves (Bastedo, 2007). To foster truly transformational change, the faculty stakeholders must be considered, as their attitudes toward the change are crucial to its success (Cejda & Leist, 2013). The theoretical construct that helps frame this study, Tummers' (2010) theory of policy alienation and change willingness, examines the

willingness of public professionals to implement a particular public policy (i.e., implement change). In his 2011 study, Tummers stated that “throughout change management history it has been fairly unambiguously claimed that a crucial condition for success is that employees are willing to implement the change” (2011, p. 7). This study examines the willingness of Connecticut and Missouri community college developmental education faculty, as public professionals, to implement the changes mandated by their respective states.

Case One: Connecticut

Legislation and policy. Public Act 12-40, enacted by the Connecticut Senate and House of Representatives in 2012, directs “public community colleges and state universities to reconfigure how remedial/developmental education is delivered...[and] requires public high schools to align their curriculum as described by the Common Core Standards to ensure that graduates are ready for college level work” (Connecticut State Colleges & Universities Board of Regents for Higher Education, 2013, p. 1). The Connecticut Board of Regents (2013) stated that the legislation was needed because “two-thirds of students entering...[Connecticut] community colleges” were being placed into remediation and “only 8% of community college students taking remedial courses earn[ed] a credential within three years” (p. 1). Further, African-American, Hispanic, and low-income students were “disproportionately” represented among those students placed in remedial and developmental coursework (Connecticut State Colleges & Universities Board of Regents for Higher Education, 2013, p. 1).

Following enactment of PA 12-40, three levels of college coursework may be offered in Connecticut: 1) College-level; 2) College-level with embedded support, which

offers the remedial coursework as a co-requisite, rather than a pre-requisite to the college-level coursework; and, 3) Intensive College Readiness Programs (or) one semester of a remedial course (Connecticut State Colleges & Universities Board of Regents for Higher Education, 2013, p. 1; Connecticut State Senate, 2012). The embedded support courses may have additional credit hours added. The intent of the readiness programs/one semester remedial courses is to prepare students, within the span of one semester, to take a college-level embedded support course (Connecticut State Colleges & Universities Board of Regents for Higher Education, 2013, p. 1). PA 12-40 also indicates that student readiness must be determined through the use of multiple placement measures, not just standardized test scores (Connecticut State Colleges & Universities Board of Regents for Higher Education, 2013; Connecticut State Senate, 2012). Course development was supported by a College Access Challenge Grant administered through the Board of Regents. The Board of Regents, in collaboration with Connecticut State Universities and Colleges, will track student outcomes to assess the success of the new initiatives and make determinations regarding future improvements (Connecticut State Colleges & Universities Board of Regents for Higher Education, 2013).

Initially, implementation of the redesigned coursework was scheduled to occur by Fall 2014 (Connecticut State Colleges & Universities Board of Regents for Higher Education, 2013; Connecticut State Senate, 2012). However, the full implementation date was later extended to Fall 2015.

Institution and participants. The first case in this study is a Connecticut mid-size city community college that serves a diverse population of about 8,200 students, with a student-to-faculty ratio of 17 to 1. The college is part of a state-wide multi-campus

public system and is an associate degree-granting institution. Eight full-time faculty who teach developmental education at the institution were interviewed. Four faculty participants teach English (writing and/or reading, the latter of which is not offered as a stand-alone course). Four faculty participants teach mathematics.

Demographic interview questions centered upon full-time/part-time faculty status and developmental teaching experience. At the time of the interviews, each faculty member participant had accumulated from one to twenty-three years of experience as a full-time instructor. Combined, the credentials for the eight faculty represent over 58 years of full-time teaching experience. Seven faculty members had been adjunct faculty at their current or other institutions before becoming full-time. With full-time and part-time teaching taken into account, each faculty member had accumulated from 5 to 24 years of developmental education teaching experience. The combined credentials for the eight faculty members represent 113 years of teaching experience and 105 years of developmental education teaching experience. Table 4.1 illustrates the faculty teaching experience.

Table 4.1.

Connecticut Participant Teaching Experience

Teaching Years	CT1	CT2	CT3	CT4	CT5	CT6	CT7	CT8	Total Years
Full-time Years	1	5	7	20	5	3	3	14	58
Adjunct Years	4	15	2	0	5	7	12	10	55
Total Teaching Years	5	20	9	20	10	10	15	24	113
Years Teaching Dev Ed	5	20	9	20	10	10	7	24	105

First cycle findings. From the five provisional codes (Policy-making Influence, Workgroup Influence, Institutional Influence, Developmental Education Value, Student Benefit) used in First Cycle coding, the sub-codes that emerged were organized into five

themes according to Tummers' five sub-dimensions and corresponding research sub-questions.

Research sub-question #1. The first research sub-question, "How do community college faculty perceive their level of involvement in the drafting of developmental education legislation?" corresponds to Tummers' Strategic Power sub-dimension (Tummers, 2010). The intent of this research question was to determine the faculty members' perceptions of how they were involved in the drafting of the actual developmental legislation. Themes that emerged from the Connecticut data indicated that faculty were not involved in the development of the legislation and were, in fact, unaware of it until it was too late to influence its passage. Some faculty expressed that they would have liked to have been consulted; others stated that they did not think their input would have mattered. Anecdotal statements from full-time faculty suggested that adjunct faculty were neither informed about the legislation before it was passed nor involved in the drafting of it.

Legislation—awareness. Faculty indicated that they were not involved in the development of the original legislation and were taken aback when they learned of it. When they did gain information about the proposed legislation, it was too late for them to influence its passage. The faculty narratives incorporated language that openly conveyed their surprise and consternation at learning about the legislation. For example, when asked about her level of awareness prior to the implementation discussions, Lauren's response was that she was completely uninformed: "Prior to the passage of the law, I knew nothing. Nothing. I came to work one day and...oh, my god!" Lauren added that the adjunct faculty at her institution were "in the dark, too." One faculty member who was an

adjunct when the legislation was passed indicated that she had no awareness of the legislation at that time and, therefore, had no opportunity to provide input.

Unlike many of the faculty participants, Diane did learn about the legislation before it was passed, but her awareness came too late for her to be able to exert as much influence as she would have liked. She first heard about the legislation from a colleague outside her department, who asked if she had seen the Senate Bill that had just been brought forward, adding, “I hear it’s movin’ like a freight train.” Diane said, “That’s how I first heard it. I heard that it was flying through committees like a train, a runaway train on a track.” She began researching the bill and discovered that there had been no negative testimony regarding it. Diane and several state committee members attempted to influence the outcome of the vote on the legislation, but it was too late. She said, “We went to the capitol on several occasions, including the day of the vote. We pulled congressional members out, expressed our concerns and were interviewed with the legislators by a newspaper....So we gave statements then, but it was so far past.”

Connecticut State Colleges and Universities Board of Regents Faculty Advisory Committee minutes from April 2012 indicate that the Board of Regents (BOR) had little notice about the bill, as well. When faculty at the Faculty Advisory Committee meeting asked about the BOR’s position on the legislation, a BOR representative responded that “the bill surfaced publicly without prior notice, and so there was no time to engage the BOR in its complexities and develop a cohesive position” (CSC & U BOR FAC minutes, April 13, 2012, p. 1).

Legislation—involvement. Some faculty expressed concern that developmental educators had not been consulted during the drafting of the legislation. Angela expressed

that view, saying, “Lawmakers and politicians drafted the policy, and any educator will tell you that no educators were involved. And that was a huge, huge mistake.” John concurred, stating that if there were concerns at the state level about student success, faculty were not made aware of it. Some faculty stated that they did not think that their input would have mattered; therefore, they were relatively nonplussed at not having been consulted in the early stages of the changes.

Research sub-question #2. The second research sub-question, “How do community college faculty perceive their level of involvement in the design of the policies resulting from the legislation and the implementation process?” corresponds to Tummers’ Tactical Power sub-dimension (Tummers, 2010). The intent of this research question was to determine the faculty members’ perceptions of how they were involved in the design of the statewide implementation models that were developed in response to the legislation. Themes that emerged from the Connecticut data indicated that faculty were represented on statewide workgroups that developed policy from the legislation but their level of perceived influence varied. Some faculty felt they were well-involved but considered meetings unprofessional in tone and/or felt that their voices or their constituent voices went unheard. Others felt they exercised significant influence. Faculty were highly aware of the implementation timelines and changes that had occurred therewith. Anecdotal statements from full-time faculty suggested that adjunct faculty were not involved in the policy development discussions.

Workgroup involvement/influence. Faculty who were involved in the statewide policy workgroups that made determinations regarding policy implementation strategies expressed varying levels of satisfaction with their own influence or the influence of their

constituent representation during workgroup discussions. Some faculty indicated that they were able to participate, felt very involved, and helped influence the policies that were developed by the workgroup. Angela noted that she was “Very...very involved” in the workgroup discussions from the beginning and continued to be involved as the plans were developed. Denise said that, despite negative feelings that sometimes surfaced (“We’re being told, ‘Okay, what you’re doing isn’t working,’ and it’s easy to get angry about that—like ‘*What do you mean?*’”), she “felt very good” to be a part of the discussions. One faculty member who was an adjunct when the workgroup discussions were taking place indicated that she was not involved in them.

One area in which the faculty felt they were able to exert significance influence during workgroup discussions surrounded a controversial proposal to establish regional centers for developmental education. The faculty explained that the proposal involved dividing the state into four regions, each of which would have a large center where students would go to work independently on computers in order to achieve college readiness. Grace said she found the concept “almost humorous” because of its logistical impossibility for their region, where about 70% of their students need remediation, adding, “We would joke and say you need something larger than the coliseum in each of these regions.” Another faculty member mentioned that most of their students would not have had access to transportation to the centers. The idea of the regional centers was ultimately discarded, at least in part as a result of faculty influence. Lauren said, “We fought very hard against that and we won. And when I say we won, we definitely, the faculty at the colleges, unanimously, across the board, across the state, fought this remediation center idea. And we won. So that got tabled.”

Not all faculty were equally confident that they were able to influence the decisions made during the workgroup meetings regarding implementation strategies. Amy felt that her input “seemed” to have been solicited: “They really want our input, or, I should say, they seem to want our input—the Board of Regents and everybody. And we really want to give it.” Alan said that he was involved in the discussions, but despite having concerns about the credibility of some of the proposals, he indicated that he and other faculty at times felt constrained because some of the meetings were led by Board of Regents representatives, which, to him, represented levels of hierarchy: “I mean, there's a certain part where you have to be a little subordinate, too. So, no, we were involved, but it was more like we were also—told.” He added, “I’m glad they let [me] participate, but in terms of participating, it certainly wasn’t a discussion of equals. I’m sure it really can’t be, you know.”

Alan also expressed concerns that decisions made “on Monday” during workgroup meetings would be “changed by Friday.” He said that as a representative for his institution, he would share information from the meetings, only to discover that the information he had shared was no longer valid because decisions had changed. Diane felt that “backroom” decisions were made at some meetings. Although she was an attendee and her opinions were solicited at workshops and focus groups, she felt she was not truly represented, saying, “Somebody always went to a backroom and wrote, ‘Here’s what we've decided.’ I never was in the room--in the ‘Here’s what we’ve decided.’...And then we were led to believe we were represented.”

Workgroup professionalism. Whether the faculty felt they had influenced the workgroup discussions or not, a common thread arose from their narratives regarding

workgroup influence. This common thread centered upon the faculty members' frustration with the bureaucrats lack of understanding of the realities of developmental education at their institution and the particular needs of their student population. Faculty felt that policymakers were not only uninformed about the student population at their institution, but that some remarks made concerning students during the policy implementation workgroup meetings were unprofessional or "offensive."

Several faculty commented strongly upon what they perceived as unprofessionalism demonstrated by state-level representatives during these meetings, particularly in regards to students being referred to as "buckets," or being placed in buckets or "silos," which they found highly insensitive. Lauren shared her perceptions about this part of the process: "They broke all of our students into four levels: level one, two, three and four, which they renamed a half a dozen times. At first they called them 'buckets.' It was so horrible. It was so horrible."

Alan explained how upset he, too, felt when policy implementation strategy discussions centered upon categorizing students into "buckets," without regard to the particular characteristics of the student population at his institution and the non-cognitive issues often associated with their background history:

They didn't take into account a lot of the non-cognitive issues, the kids dealing with gang issues, the kid dealing with...(pause). You know, when I was ten, I was reckoning with the fact that I wouldn't grow up to be Batman. And some of these kids, when they were ten, they were trying to figure out where they were going to get their next meal, for them and their little brother, because Dad's in jail and Mom's a junkie or a prostitute.

They show up here 10 years later, 8 years later, and they've still got that mindset. All the policy in the world doesn't change that. So we can debate the silo and the bucket, but I said in one meeting when we were using buckets, "Well, you know, these kids, their bucket has a hole in it, and they know it. All this discussion isn't going to change that."

Alan added that he found these discussions irritating because they were "pie in the sky" and not "based in reality." Navarro (2012) found that personal factors can affect the low income and minority students' ability to succeed; among these factors are unsafe neighborhoods, gang and gun violence, homelessness, substance abuse and addiction, and being a first generation college student. Navarro further found that students living in urban poverty are more likely to experience Post Traumatic Stress Disorder than soldiers who have served in the Middle East (2012).

Timelines awareness. Across the board, faculty were highly aware of the implementation timelines, including the extension that had been granted by the state for full implementation in Fall 2015.

Whether they felt they influenced the outcomes or not, the faculty who were involved in the statewide workgroup discussions indicated that they were glad they had participated, even though, by their accounts, the process was long and sometimes arduous. Lauren explained that "It was a year of arguing. A solid year of arguing....from our level up to them and then back to us and up."

Research sub-question #3. The third research sub-question, "How do community college faculty perceive their degree of choice in the implementation process at their institution?" corresponds to Tummers' Operational Power sub-dimension (Tummers,

2010). The intent of this research question was to determine the faculty members' perceptions of their perceived degree of choice in the implementation process at their institution. Themes that emerged from the Connecticut data indicated that most faculty felt highly involved in the implementation process at their institution and experienced a high level of autonomy and institutional support in decision-making. Faculty who were not involved were satisfied that their level of involvement was appropriate to their desire to participate. Anecdotal statements from full-time faculty suggested that adjunct faculty had limited input during institutional implementation processes.

Faculty expressed clear excitement and enthusiasm as they talked about the work that they had accomplished at their institution and the support that they had received as they completed that work. Expressions of collegiality ran throughout the narratives, in which faculty gave credit and “kudos” to each other; their department, as a whole; and their institutional leadership during the pilot development and implementation processes at their school.

Institutional involvement/autonomy/support. Faculty indicated that they experienced a high level of control and autonomy during the new curriculum and assessment development. Diane shared the “full control” that the faculty had during the process: “There’s really no one we have to ask permission from, and that’s been a good thing. There’s a lot of freedom here...let’s just try it, you know, let’s do it. And so I feel...we had full control.” The faculty said they felt free to be creative and secure in having earned the trust of the institution, as Denise explains:

We don’t have to go through all kinds of fancy channels to work with people, which has been just awesome. We can come up with our own

ideas, and there was really no pressure saying, “No, you can’t do it that way; you have to do it this way.” Really free to just run with our ideas—which feels really good, you know? That you’re trusted....As much work as it was, at least we got to make those decisions.

Faculty indicated that they received positive support from their institutional leadership. Diane felt that she was not only well respected among her peers, but that the administration was very appreciative of her efforts. After serving on the state workgroup, Alan realized that his colleagues at other schools may not, “enjoy the level of openness” that he enjoys with administration at his institution. He added that he felt fortunate that the institution was willing to provide financial support for the implementation efforts, noting that the “dean and president were able to see past the financial aspect of it and think there's something that has to be done.”

By faculty accounts, the support that they received was not limited to that from their departmental colleagues or their administration, but came from areas across the institution during the development and implementation of their pilot projects. “The nice thing about [our institution],” said Denise, “is that...we do have the support, and we can work very closely with other departments—the counseling and advising department, the registrar, the tutoring center.” Alan said that he “wore out a lot of shoe leather” going back and forth to counseling, the registrar and the administration, and talking to others across the institution about how to collaborate and make the initiatives work. As he said, “I got a lot of help. People were very open to it.... We very much have an open door policy around here....Between the counseling office and the registrar, our information officer...all these doors just opened. Very open door....They're supportive.”

Faculty who did not participate seemed satisfied with their level of participation, stating, “It wasn’t necessarily that I was excluded; I just wasn’t in a position to participate” and “Did I want more involvement? Personally, no.” When faculty chose not to participate, they noted their pre-existing volume of work responsibilities as the primary reason.

Adjunct faculty involvement. While full-time faculty experienced autonomy, adjunct faculty did not have a similar experience, according to faculty narratives. Although full-time faculty repeatedly noted that they had “gotten the word out” to the adjunct faculty and “told them about all of [the] plans,” in only one instance did a faculty member mention that adjunct faculty were given any opportunity to participate in the decision-making regarding curriculum development. One full-time faculty member who was still an adjunct when the curriculum development began said that she really cared about developmental education and wished that the option had been presented to her: “I really do wish the option was presented, ‘Do you want to help us work on this?’ Because I absolutely would have loved to be in on the first stages, to see progress, and, sure, to help the students.”

Research sub-question #4. The fourth research sub-question, “How do community college faculty perceive the value of the policy to improvement of developmental education outcomes in their state?” corresponds to Tummers’ Societal Meaning sub-dimension (Tummers, 2010). Themes that emerged from the Connecticut data indicated that faculty were optimistic that the changes resulting from the legislation and resulting policies would be beneficial to higher education in Connecticut but stated that more time is needed to determine the effect on student outcomes throughout the state. They felt that

improvement in outcomes may depend upon the improved alignment with K-12 preparation and college readiness portion of PA-12-40 slated for implementation in Fall 2016. They also noted that measures of student outcomes will be dependent upon the state's definition of "success."

Faculty felt that several of the changes resulting from the legislation and accompanying policies would be beneficial to developmental education outcomes in their state. Several "socially relevant goals" (Tummers, 2011, p. 9) fall within this theme. The socially relevant changes that the faculty identified as being beneficial to improvement in developmental education outcomes statewide are

- Increased professional development for all faculty and paid professional development for adjunct faculty
- Increased adjunct turnover, resulting in "new blood"
- Improved instructional consistency
- Additional instructional resources
- Improved completion rates
- Grant funding
- Improved college readiness alignment with the high schools

Professional development. The faculty indicated that, as a result of the legislation and accompanying statewide grant funding, they have been able to offer increased professional development for all faculty and paid professional development for adjunct faculty. In preparing for the pilot of the new classes, their institution was able to offer the adjunct faculty paid professional development for the first time. Denise said that the adjuncts attended 2-3 hour workshops where they learned about the pedagogy and how to

create a cohort. She mentioned that they had “great attendance” and that the adjunct faculty “really liked being appreciated...and they’ve been very receptive to it.”

Adjunct turnover. The faculty and the institution, said Amy, “really care about who they do hire to teach developmental because we need it to be successful.” Denise added that “There are some, of course, who are stuck in their old ways. They don’t want to change.” Alan explained that this adjunct resistance was not necessarily negative for the institution, as it allowed departments to bring in “new blood” and expose even the full-time faculty to different pedagogical approaches: “It was actually a very good thing. I mean it was one way to kind of do some weeding that needed to be done....And I do think it was necessary.” Alan added that this turnover helped him, as well, by exposing him to instructional approaches that adjunct faculty had been employing at other institutions.

Instructional consistency. The faculty stated that the legislation has also helped improve instructional consistency, in part due to the professional development opportunities offered to adjunct faculty, but also because it motivated the full-time faculty to put materials on Blackboard and require that everyone use the same materials. Diane says, “It’s made all of our part-timers come on board in the same way....All of our students are benefiting because they have that consistency.”

Instructional resources. The grant funding made available as a result of the legislation provided further benefits in the form of additional instructional resources, such as drop-in tutoring and embedded tutoring. Diane said that the legislation “made the faculty “all really aware of really wanting these students to get through, connecting them to services.” Faculty felt that both of these resources provided support, not only for the students, but for instruction, as well. Lauren said that she administered an informal poll

of the faculty during the Fall 2014 semester and found that the faculty “loved having the [embedded] tutor there; they loved the extra support. Dedicated tutor hours just for them in the drop in center.” Grace agreed that the embedded tutoring was a very positive change, saying, “I think the embedded tutoring is wonderful...I think it's a wonderful, wonderful resource in my classroom.”

Completion rates. Several faculty indicated that they were seeing improvements in completion rates, a very important socially relevant goal. Alan mentioned that the “numbers are better,” at his institution, stating, “We're at about a 72% success rate for 101 completion with the ALP model, whereas, I think, we were in the 30s...That's a big difference. Big difference.” He added that he felt the outcomes across the state would be positive, as well. Lauren agreed that more students are getting through college level math at her institution than before, but said that there is more variation at the state level. She noted that the faculty at her institution “definitely have not just passed more people because we wanted to pass more people,” and she believes that the richer pedagogical approaches being used by the math faculty at her institution have added to the rigor of the curriculum, while increasing the success of the students. Denise added, “[We] might be getting double, triple the number of people through. I want to be careful about statistics I'm quoting because I'm not sure what they are at this point...but it's probably at least double.”

Funding. As mentioned in the professional development and resources sections, the faculty attributed much of the societal benefits that they are seeing to the additional funding that their institution has received as a result of the legislation. Lauren explained that when the Board of Regents representatives asked the regional groups what they

needed in order to serve the students—without regard to money—her group said, “Well, if we’re not going to worry about money, why aim low?” Lauren said that they decided to “aim for the moon,” with positive results—though the funding is not permanent, which represents a source of concern for the faculty: “We aimed for the moon...And we got two of the other regions to submit similar proposals with the expectation [that] we were going to get laughed out of the BOR meeting....and we did, the first time.”

Although they did “get laughed out” the first time, Lauren said that “What ended up happening was funding that almost supports these pipe dreams.” However, she notes that the funding is not permanent, which is a cause for concern because the institution cannot sustain the current initiatives without additional resources from the state: “That’s a real worry because right now we educate these kids for free. That’s not a small thing and...our college can’t support this independent of that funding. But we’ve got it now and it’s working. It really is working.”

K-12 alignment. The faculty noted another positive aspect of the legislation to society in that it will require the colleges to align their curriculum with the high schools and the high schools to prove that their matriculating students are college-ready. While this part of the legislation is not slated for full implementation until Fall 2016, Diane said that she could already see the positive benefit of the legislation in this respect, as the high schools have begun asking them, “What do you want from our students?” and “What does that mean—‘college-ready’?” She added that this partnership has “opened up great dialogues.” However, the faculty noted that the real benefits of this initiative will depend upon the success of the alignment itself.

Definition of success. A recurring faculty concern within the Societal Meaning theme was the vague or limited definition of student success used by the state to measure student outcomes. Diane said, “I don’t know what the measure of success is....There are so many positives that have come across...because of the new policies, but that depends on what you’re going to judge as success in the end.”

Research sub-question #5. The fifth research sub-question, “How do community college faculty perceive the effects of the policy on students?” corresponds to Tummers’ Client Meaning sub-dimension (Tummers, 2010). The corresponding interview question given the participants was “How do you think the policy changes will affect students in *your* developmental education courses?” Themes that emerged from the Connecticut data indicated that faculty feel that the changes will benefit their students that need developmental education, on the whole, but feel that they will be detrimental to those students needing the lowest level of remediation.

The following changes that have occurred as a result of the legislation are those that the faculty feel will benefit their students:

- Acceleration
- Increased student support services
- Improved faculty-student engagement
- Student trust/empowerment

Acceleration. Accelerating students through remediation in the boot camps and in other courses was identified by the faculty as one of the primary student benefits arising from the legislatively-mandated developmental education changes. As Lauren said, they are now “scooping up some students from developmental and pushing them through

college-level at the same time.” Lauren shared that after four semesters of running one of their newly-developed accelerated math courses, more than fifty percent of the students were passing. She emphasized that the reason this statistic is “huge,” is that “That’s through college level. That’s not *to* college level; it’s *through* college level, which is pretty amazing.” She added that for their school, the class meets the mathematics graduation requirement for more than half of all of their programs, meaning that over half of the students who pass will not need to take an additional mathematics course. John agreed, stating that “The goal is to graduate more students, so...it’s shortened the students’ duration or the length of time that they will be involved in getting their degree.” However, he also qualified his endorsement for acceleration by saying it is positive for “capable” students.

Amy had mixed feelings about the accelerated developmental programs. She noted that with the shorter pathways, students “might stick around a little longer, if they see there is a light at the end of the tunnel,” but she added that it could go either way—especially for the students who are at the college not to get a degree but for other purposes and/or who “aren’t quite there yet.” She is concerned that they “might end up losing those students sooner” without the longer course sequences that would allow them time to remediate their skills. For students who are degree-bound or close to college ready, she believes the new models to be beneficial, but for the lower-level students, she quietly said, “It’s more of a detriment.” After a moment’s contemplation, she then asked, “But...is it really the policy’s fault? Or is it that that is just our student population?”

Student support services. Among the primary benefits to students are the increased support services, which range from counseling services, tutoring, and more. As

Diane noted, the counseling services start the students out “in a really great way.” She said that “They understand there’s help at the college, that there’s support.” Some of the classes connect the students right away with counseling services, and a counselor comes to class to talk to the students about time management, one of the non-cognitive skills that faculty say can keep students from succeeding. After the passage of the legislation, drop-in tutoring was added at the institution so that students no longer need to make a tutoring appointment or have a lengthy wait that could place them even farther behind. Lauren noted that in the past, when students had to make an appointment, a lot of them “had already toasted themselves before they could get an appointment.”

In addition, as indicated in the Societal Meaning section of this report, the institution added embedded tutoring. The added tutoring services benefit faculty in terms of instructional support and benefit students in terms of learning support. As soon as a student in Diane’s class gets a C, she now requires the student to meet with a tutor. “Those are changes that have happened only because the law brought us money to put in additional embedded support,” she said. “So we hired tons and tons of tutors. Well, now we got ‘em...there’s tutors everywhere. Send the students! All of my students are going to reap the benefit of that increased tutoring.”

Faculty-student engagement. Faculty mentioned smaller English class sizes as a benefit of the legislation because the smaller classes allow faculty to return student work sooner. Alan also gave credit for the smaller class enrollment caps to his school’s administration: “I think class size has shrunk significantly. You know, again it’s a lot of credit to our administration, and the legislation, to a large degree. That’s important because I can get papers back to students much quicker.” In addition to adding to

feedback efficiency, the smaller classes allow faculty to become more engaged with the students, not just in terms of the assignments, but in getting to know them earlier by name and assisting them with non-cognitive issues as they arise. Alan said that, in the past, “Maybe by October, what happened was half the class would just disappear. You don't know where.” With the innovative pedagogical approaches that he currently employs, when students “disappear” he said he can now call or email them and ask, “Where are you? What's going on? You need to come in. You need to come back.” He added, “So it's a big difference.”

Student trust/empowerment. Alan further explained that, under the new pedagogical models, the students also trust their instructors more and the trust builds more quickly. When students experience crises “from being homeless to [having] an eating disorder,” Alan said they come to him sooner with those issues, “probably because they don't feel like a number.” This allows him to direct them to the appropriate services early and keep them retained in class. Alan felt that the legislation has helped him empower students and give them self-confidence in their ability to succeed. He said he begins his Accelerated Learning Program (ALP) sections by telling the students, “The state is making an investment in you by running this class almost at a loss because they believe that you can go forward and you can do this.” “It's very empowering to them,” he said. “Very empowering to them. So it's had a huge impact. Huge.”

Angela agreed, stating that developmental faculty must also be social workers and counselors: “We are social workers, we are counselors. That's part of who we are. In developmental education....if we don't have that compassion, if we don't have those counseling skills and advising skills, then we really shouldn't be here.” Along these lines,

Angela explained that in the boot camps, the faculty have to look beyond the students' skills or lack thereof and "peel away their insecurities and their fear of writing and reading." Their student population, she said, often "never had anybody in their corner," so the faculty have to take responsibility for looking out for them and empowering them to have the confidence to learn.

Lowest level students. Diane said she thinks that the student outcomes at the institution would improve slightly because students are now able to complete the sequence in a timelier manner. However, she was not optimistic about improved outcomes for the lowest level students, saying, "I don't think it will change the very lowest of the low, low, low people very much. They were not successful in our old way of delivery, and I don't think it will help them."

This concern for the lowest level students ran through the faculty narratives, along with a concern regarding the definition of student success. Many faculty expressed worry that options for the lowest level students will be reduced as a result of the legislation, including returning adult students who want to change careers or get additional training but do not qualify to enroll in the college's remedial coursework. Grace asked, "Where do they go? What options do we have for them? Do they go to Adult Ed? Adult Ed has the GED classes, but [what] if the student has the high school diploma?" She added that, often, these students are capable but simply have not worked on mathematics for a very long time. "We're just not giving students...enough support in terms of where they can go to get this training if they're supposed to come here and be ready," she said. "The state just isn't doing enough for those in-between students."

Faculty, on the whole, felt that some lower level students who may not be successful under the current policies could be successful if given more time and instruction. Angela noted that because of the legislation, the faculty created instructional models that work within a “strict time frame,” and as a result, students “don’t have a lot of time for fooling around.” She added, “For some students, that’s good. One good thing I can say about PA 12-40, for sure, is that it stops students from ‘lollygagging’. The students who are just ‘lollygaggers’ but have the ability, they know they’ve got to get through.” However, she worried that those students who come in at the third or fourth grade level may suffer from the movement to accelerate, and “the shame of it is that we’ll lose them because we’ll say, ‘Okay, your time’s up. You didn’t get it, so...’” Regarding the latter group of students, Angela returned to the definition of success, explaining that even though a student may not be ready for a gateway course after one semester of developmental education, he or she may still have made significant gains:

If anyone ever asked me to speak about that...I might show a writing sample from the beginning of the semester and the end of the semester and say, “Yes, this person still isn’t ready, but this person has been persistent; this person has moved up many levels and will continue to do so with more instruction.” The answer is not hurry up, hurry up, hurry up. It’s not. That’s not the answer for everybody.

Bailey, Jeong, and Cho (2009) note that students can benefit economically even if they fail to complete a credential but finish one or two remedial courses because they have likely “learned valuable skills” (p. 26) as a result.

Second cycle findings/central research question. Second Cycle coding was used to address the study’s main research question, “How do community college faculty perceptions of their involvement in the design of developmental education legislation and policies, as well as their perceptions of their involvement in the policy implementation process, affect their willingness to implement instructional change?” In the second cycle, data were coded in two provisional categories: Change Willingness and Change Resistance. Subcodes that emerged were then correlated to Tummers’ (2010) sub-dimensions.

Change willingness. Themes that emerged from the Connecticut data indicated that Change Willingness was demonstrated when faculty perceived that

- compliance with the mandates was not optional (Strategic Powerlessness)
- they experienced high levels of influence during the state workgroup meetings (Tactical Power);
- they experienced high levels of influence, autonomy, and support in implementing the changes at their institution (Operational Power);
- the changes would reap benefits to higher education in their state (Societal Meaning); and,
- the changes would reap benefits to their students (Client Meaning).

Strategic power (powerlessness). The data showed that faculty demonstrated change willingness associated with strategic power when they perceived that compliance with the mandates was not optional. Although the faculty indicated that they were willing to implement change for reasons of legal compliance, Amy expressed that it was not necessarily of her own volition, saying, “I mean...we have to do it a certain way;

otherwise, we're in jeopardy of violating laws." Diane's willingness to adhere to the law was coupled with an expression of regret related to her perception that the changes would not serve the interests of the students who need the lowest level of remediation, indicating that she experienced an inner conflict between policy compliance and her personal value of meeting the needs of students: "I feel sad that I couldn't come up with something better that would both meet the law and help the students. But I did an awesome job of meeting the law...."

Although the change willingness is within the strategic power sub-dimension, because it was not voluntary, it was coded as strategic powerlessness.

Tactical power. The faculty demonstrated change willingness associated with tactical power when they experienced high levels of influence during the state workgroup meetings. Along with other representatives from her institution, Denise was involved in the statewide College Access Challenge Grant (CACG) workgroup and said that their college was "very well represented on the group," which was comprised of representatives from community colleges across the state. She mentioned the collegiality that existed within the CACG workgroup and how the members approached problem-solving: "We're all doing different things, but we met to discuss that, throw ideas around. We went through the common core, picked out exact topics we would all cover, which really brought us together." Denise added that the group didn't agree on everything, but they all agreed to solve the problems together.

Although Denise acknowledged that faculty involved in the workgroups did experience some residual negative feelings as a result of not being brought into the earlier discussions during the formulation of the legislation, she said she was "still excited" at

the prospect of working on the implementation strategies, and declared, “I have no problem with change, and I knew we could do things better. You know, sometimes you need that kick in the pants.” According to Denise, the workgroup meetings, which she said lasted for “a really rough two years” and “were exhausting,” afforded the faculty an opportunity to “do something better” and to “charge ahead...and come up with your own solutions, before one is imposed on you...if you take the lead, you’re going to have more say.”

Operational power. The faculty demonstrated change willingness associated with operational power when they perceived that they experienced high levels of influence and autonomy in implementing the changes at their institution. Lauren explained that she enjoyed the challenge of developing the new developmental programs and curriculum. Like Denise, she stated that being involved in the change process was “exciting.” Also like Denise, she reiterated the negative manner in which the legislation was presented to the faculty. However, Lauren countered with commentary on the effectiveness of the changes and how much she enjoyed being part of the scholarly and creative processes involved in the institutional implementation:

It was also really exciting...I got to be part of a massive overhaul, and we got to do some really creative thinking and creative research. And as much as we don’t like the way the law was presented to us, it has produced some pretty effective changes. So it was kind of exciting to be in on that. The way we got on it was not cool, but to be a part of it was pretty nice.

John exhibited change willingness in the operational power sub-dimension, and like Lauren and Denise, mentioned creativity as a positive byproduct of the legislation. He,

too, mentioned that sometimes the status quo just needs to be “shaken up”: “The good part is that they shook up the box, and we all worked as a team, and we did create....And sometimes you just need to shake everything up.”

In describing their involvement during their institutional implementation process, the faculty repeatedly used the word “proud,” noting that they were proud of their own efforts, as well as those of their department: “I’m very proud of my role there. I feel like I made a huge impact” (Diane); “I’m very proud of my department. I’m very proud of my involvement in the implementation of it” (Angela). They frequently acknowledged the work of their colleagues and praised their efforts. In describing some of the efforts that had taken place on a particular initiative, Alan said that he couldn’t claim the credit for the “good work” that two of his colleagues had been doing. “That’s their credit,” he said. “They’ve done great work. I think it’s going to work well.”

Societal meaning. The faculty demonstrated change willingness associated with societal meaning when they perceived that the changes would reap benefits to developmental education in their state. The faculty demonstrated clear willingness to implement change when change was linked to funding for their initiatives, a socially relevant goal. As Diane explained, the institutions were told that they could delay implementation for a year, until Fall 2015, but funding would be given only to institutions that were implementing pilots and that if they went “back to the old way,” they would “have no funds.” As a result, nearly all of the institutions in the state implemented in Fall 2014. Diane noted that some schools implemented ahead of the deadline “because we couldn’t get money for our pilots if we didn’t.” She then laughed as she said, “That’s why at [--], we have NO vestiges of the old way left. We are in full

implementation here.” Diane further explained that the funding allowed the faculty to initiate changes that they had wanted to try for some time while reacting proactively to the legislative mandates:

At this institution, we jumped right on—we’re ahead of the game. We have been all along. When we heard it passed, we said, “Now’s our chance,” because they gave us money...and we wanted to use the money well. So as soon as we heard there’s money, we said, ‘Let’s run this—we’ve always wanted to do one of these, anyway. In two years, we’re going to have to have one. Let’s do it.’ So that’s when we started our boot camps.

Client meaning. The faculty demonstrated change willingness associated with client meaning when they perceived that the changes would reap benefits to their students. The faculty directly or indirectly associated benefits or detriment to students with nearly every aspect of the legislative changes. When faculty saw that the changes created direct benefits to their students, they exhibited change willingness. Regarding his role in the institutional change process, Alan said, “It felt great. It felt like a really good opportunity to...do things that are good for students. And that part of it is really nice...we try to do what’s best for students, so I feel pretty good about that.”

Change resistance. Themes that emerged from the Connecticut data indicated that Change Resistance was demonstrated when faculty perceived that

- they had little or no influence on the development of the legislation (Strategic Powerlessness);
- they experienced low levels of influence and autonomy in implementing the changes at their institution (Adjunct Faculty—Operational Powerlessness);

- the changes would have negative effects on higher education in their state (Societal Meaninglessness); and,
- the changes would have negative effects on their students (Client Meaninglessness).

Strategic powerlessness. The data showed that change resistance occurred when faculty perceived that they had little or no influence on the development of the legislation. When asked how she felt about not being consulted during the development of the legislation, Diane said she felt “pretty slighted...not valued.” She described the resistance to participation that faculty exhibited at some workgroup meetings as a consequence of their anger at not being consulted during the drafting of the legislation:

We were all so darn mad. Every meeting started with “This is stupid, this shouldn’t be happening, why are we...?” It was hard to get down to business at any meeting we had. We couldn’t get past the anger. Are you kidding me? We didn’t even want to work on a solution because this isn’t even possible. So they didn’t ask me and I’m not happy about it.

Tactical powerlessness. The data did not reveal any instances of faculty change resistance within the tactical power sub-dimension/theme. Although the faculty did exhibit change resistance at workgroup meetings, as previously discussed, that resistance was related to their perception of low strategic power and a consequence of being unable to exert influence on the legislation. While some faculty expressed concerns about their perceived lack of influence during the workgroup meetings, they willingly continued to participate.

Operational powerlessness. The data did not reveal any instances of full-time faculty change resistance within the operational power sub-dimension/theme. The faculty did report feeling constrained in regards to the amount of mandated content that they had to include in coursework, but those constraints were imposed at the strategic level, by the legislation, not the institutional management at the operational level.

Although no adjunct faculty members were interviewed, full-time faculty narratives indicated, anecdotally, that some adjunct instructors demonstrated change resistance when presented with the curricular and pedagogical changes at their institution. According to the full-time faculty reflections, the adjunct faculty experienced little to no autonomy in the institutional change process. Therefore, their resistance falls within the operational powerlessness sub-dimension.

Societal meaninglessness. When faculty perceived that the changes would have negative effects on higher education in their state, they exhibited change resistance. Denise shared that the discussions at a September 2012 statewide meeting regarding the legislation “started things off on a bad note” for her when attendees were told to get into groups and “come up with a transitional method, little to no cost.” She added that in response the group “all kind of went backward...we were shell shocked.” Alan concurred, adding, “What I disliked was the way that we were told to think big and not think about money...which seems silly, a waste of time.”

Client meaninglessness. The faculty exhibited change resistance when the changes would have negative effects on students. Faculty exhibited resistance to the policy mandates that negatively affected the lowest level students. In referring to “the

very lowest level of students,” Diane explained that she was not happy with the instructional changes that had been made in response to the legislation:

I am not happy with what I’ve created. I don’t think what I’ve created is going to work well and really make a huge difference in students’ lives. I feel like I’m proud at giving birth in the short time they gave me to do it, and to put everything in place, but I do not feel hopeful that what I’ve put in place is going to work.

Summary. Table 4.2. illustrates the relationship of change willingness to change resistance in each of the Connecticut sub-dimension thematic areas:

Table 4.2.

Connecticut Participant Change Willingness/Change Resistance

Connecticut	
<i>Change Willingness</i>	<i>Change Resistance</i>
Strategic Power (Rules/Legal Compliance)	Strategic Powerlessness
Tactical Power	-----
Operational Power	Operational Powerlessness (Adjunct Faculty)
Societal Meaning	Societal Meaninglessness
Client Meaning	Client Meaninglessness

Case Two: Missouri

Legislation and policy. In 2012, the Missouri Legislature passed HB 1042 (sponsored by Representative Mike Thomson)/SB 455 (sponsored by Senator David Pearce). This legislation “charged the CBHE to further promote student retention, progression and credential completion in an effort to improve degree completion rates and remove barriers to graduation” (Missouri Department of Higher Education (MDHE), 2012, p.

13). The legislation includes two items that are specific to developmental education: 1) It requires all two- and four-year public higher education institutions to identify and use best practices in remediation, and 2) it requires that the Coordinating Board for Higher Education (CBHE) include in its annual report campus-level data on student persistence and progress toward implementing revised remediation, transfer and retention practices (MDHE, 2012; Missouri House of Representatives, 2012).

The Missouri Department of Education (MDHE) Annual Report, Fiscal Year 2013, outlined the progress that MDHE had made toward completing its charge to implement the legislation. These efforts included commissioning “an overview of developmental education, including a literature review, from MPR Associates in Washington, D.C.” and conducting “a survey to assess the current state of developmental education in Missouri at public and independent institutions,” the latter of which helped inform and guide the best practices policy development (MDHE, 2013, p. 20). In September 2013, CBHE approved the policy document, *Principles for Best Practice in Remedial Education* (MDHE, 2013), which was developed with assistance from the Missouri Task Force on College and Career Readiness (MDHE, 2015). The resulting policy “presented a set of practices that would be used to guide current and future efforts related to remedial education,” including “the use of consistent statewide assessment and placement practices, assuring the alignment of gateway courses with students’ course of study, particularly in mathematics, assuring curricular alignment between K-12 and postsecondary institutions, and establishing minimum standards of competence (threshold scores)” (MDHE, 2015, p. 18).

In coordination with the Missouri Task Force on College and Career Readiness and the Missouri Developmental Education Consortium (MoDEC), the Missouri Department of Higher Education began work to implement the policy initiatives, with Fall 2015 as the target date for full implementation (MDHE, 2014b). The assessment and placement guidelines took effect in Fall 2015. The mathematics pathways, K-12 alignment, and threshold scores items are still under discussion (MDHE, 2015).

Institution and participants. The second case in this study is a large suburban area Missouri community college that serves a diverse population of about 7,100 students, with a student-to-faculty ratio of 24 to 1. The college is a public, single-campus, associate degree-granting institution. Seven full-time faculty members and one adjunct faculty member who teach developmental education at the institution were interviewed. Two participants teach English (writing), two participants teach reading, and four participants teach mathematics.

Demographic interview questions centered upon full-time/part-time faculty status and developmental teaching experience. At the time of the interviews, seven faculty member participants had each accumulated from 2 to 28 years of experience as a full-time instructor. One adjunct faculty participant had no full-time experience. Combined, the credentials for the eight faculty represent over 130 years of full-time teaching experience. Six of the full-time faculty members had been adjunct faculty at their current or other institutions before becoming full-time. With full-time and part-time teaching taken into account, each faculty member had accumulated from 9 to 35 years of developmental education teaching experience. The combined credentials for the eight faculty members represent 174 years of teaching experience and 169 years of

developmental education teaching experience. Table 4.3 illustrates the faculty teaching experience.

Table 4.3.

Missouri Participant Teaching Experience

Teaching Years	MO1	MO2	MO3	MO4	MO5	MO6	MO7	MO8	Total Years
Full-time Years	2	7	20	23	0	27	23	28	130
Adjunct Years	7	6	0	1	21	8	1	0	44
Total Teaching Years	9	13	20	24	21	35	24	28	174
Years Teaching Dev Ed	9	11	20	24	21	35	24	25	169

First cycle findings. From the five provisional codes (Policy-making Influence, Workgroup Influence, Institutional Influence, Developmental Education Value, Student Benefit) used in First Cycle coding, the sub-codes that emerged were organized into five themes according to Tummers' five sub-dimensions and corresponding research sub-questions.

Research sub-question #1. The first research sub-question, "How do community college faculty perceive their level of involvement in the drafting of developmental education legislation?" corresponds to Tummers' Strategic Power sub-dimension (Tummers, 2010). The intent of this research question was to determine the faculty members' perceptions of how they were involved in the drafting of the actual developmental legislation. Themes that emerged from the Missouri data indicated that faculty who were associated with the Missouri Developmental Education Consortium (MoDEC) had high levels of awareness of the pending legislation; those who were not involved with MoDEC had little awareness. Most faculty indicated that they were not involved in the drafting of the legislation; however, one faculty member noted that she did provide feedback prior to its passage. Faculty satisfaction with their level of

involvement varied. Adjunct faculty were neither informed about the legislation nor involved in its drafting and expressed disappointment at not being included in the discussions.

Legislation—awareness. Faculty who were involved with the Missouri Developmental Education Consortium (MoDEC) indicated that they had knowledge of the House Bill 1042 prior to its passage. Donna, who was a MoDEC member at the time, said it was brought to the group's attention during a meeting that "this proposed law, HB 1042, was in committee and that it probably had a good chance of passing. That was at least six months or more before the legislation was passed and signed by the governor." Bryn, who communicated with MoDEC through the institution's representative for the group, said that she was "acutely aware" of the legislation. Faculty who were not involved with MoDEC had less awareness of the pending legislation. The level of awareness described by those faculty fell on a continuum from hearing "rumors" that they "would need to work on developmental retention and related issues" to knowing "basically very little." In describing her level of awareness, Janine said she was "not very aware." She followed this response with an explanation of why she was not concerned that she, herself, was not well aware of the legislation and the surrounding discussions, stating that she trusted her constituent groups to represent her: "It doesn't overly bother me that I'm not aware. It probably bothers me more that some math experts aren't aware."

Eva added that because their department was experiencing significant change due to retirements at the time the legislation appeared, it was not given the attention that it might have received under different circumstances. Tiffany felt that she "didn't know

enough about [the legislation].” She said, “I felt a little bit dissatisfied, like I was kept in the dark, but that maybe it wasn’t important discussing it before it went through.” She then added that she wished she had been more aware and had been included at the time, saying, “It would be nice to be a part of the process and be aware...[knowing] how you’re going to adjust and what’s going to be happening to developmental ed as a whole,” versus dealing with the mandates after they were in place. However, she also noted that she wasn’t a full-time faculty member at the case study institution prior to the passage of the legislation.

Andrea, an adjunct faculty member, indicated that she knew nothing about the pending legislation: “I did not know anything about it until right at the time it was getting ready to be brought up.” She wasn’t sure how she learned about it at that time, saying that she “just heard a little snippet about it, maybe something on a website.”

Legislation—involvement. Faculty, in general, indicated that they were not involved in the drafting of the legislation. However, Bryn stated that she did work with the institution’s MoDEC representative and others on her campus “to provide feedback to the proposed bill before it went through legislation.” She added, “MoDEC was working on that.”

Faculty satisfaction with their level of involvement in the drafting of the legislation varied. Eva said that, in retrospect, she wished they had been “much more involved.” Although Bryn did work with others on campus to provide feedback through MoDEC, she wasn’t confident that her input was taken into consideration: “I submitted my feedback....that was before it was passed...[When] I didn’t hear anything about

that...I was concerned that it wouldn't matter....so I did not feel good about any response to the feedback that I gave.”

Other faculty stated that they were satisfied with their level of involvement in the policy drafting process. Donna said that she felt that she “came in at an appropriate spot.” Some full-time faculty indicated that they didn't expect to be involved or wish to be involved in the legislation drafting process. Michael shared this view, stating that he didn't feel the need for more information or input in the early stages because the bill could be in a state of flux, and he saw any mandates as inevitable, anyway:

Many times the legislature will not get as far as it thinks at one point or they will change the direction that they're going for any number of reasons. So, I personally am just as happy to have a finished product, and we have to do this kind of thing.

Some faculty were satisfied that their constituent groups would effectively represent them and felt that they did not need to be directly involved, themselves. Maura explained, saying, “At that time, I felt like I knew the position of the professional organizations, and I agreed with their positions, so I trusted them to be my voice....I didn't feel like I had to monitor the legislature at that point.” Janine agreed that she was comfortable with constituent group representation, but countered this statement with comments indicating that she felt unsure that the “right people” were included in the decisions:

I'm going to trust if they are getting input from the right math people to represent me. I'm generally okay with that. I don't know that that's always the case...that they have the right people in the room to help make these decisions....There's probably a little distrust as to whether that has

happened or not. But, do I personally feel the need to supply input to everything? No. That's why I have people representing me.

Andrea gave the adjunct faculty member's perspective, saying, "It would have been nice to have had some information because this could have affected our jobs." She then asked, "How many of those people actually teach in developmental ed? You know, why not bring in people who actually are in the trenches every day, instead of just legislating what they *think* should be done?"

Research sub-question #2. The second research sub-question, "How do community college faculty perceive their level of involvement in the design of the policies resulting from the legislation and the implementation process?" corresponds to Tummers' Tactical Power sub-dimension (Tummers, 2010). The intent of this research question was to determine the faculty members' perceptions of how they were involved in the design of the statewide implementation models that were developed in response to the legislation. Themes that emerged from the Missouri data indicated that faculty who were involved with MoDEC were also involved with the drafting of the CBHE policy document that interpreted the legislation. Those who were not involved with MoDEC were not concerned about their own lack of involvement but were concerned that their departmental or discipline constituent groups were not appropriately represented in the workgroup discussions. Most faculty were unaware of any implementation timelines. Adjunct faculty were not involved in policy discussions and expressed disappointment at not being included.

Workgroup involvement. The data showed that faculty who were involved with MoDEC were also involved with the drafting of the Missouri Department of Higher

Education policy document that interpreted the House Bill 1042 legislation. As a MoDEC representative, Donna felt that she was highly involved and that the MDHE process was a positive one. She stated that she was involved through MoDEC because an initial draft of the policy document was presented to that group, who discussed it with the Assistant Commissioner of Academic Affairs for the Missouri Department of Higher Education (MDHE). Donna explained that after getting feedback from the group, MDHE revised the policy draft and then brought it back to MoDEC for another review:

Then it came back for a final run through to all of us to see what comments we wanted to make. So, many of us on MoDEC made extensive comments, and many of our comments and perspectives found their way into this policy. It was very gratifying to see the responsiveness of the Department of Higher Education....I thought they did a nice job....I feel that many of my comments probably were common to other people's comments. And, those did make it into this draft and affected the final draft. I thought it went very well. I was shocked that the Department of Higher Ed would actually involve and consider and include comments from people on the frontlines.

Donna added that representatives from both 2-year and 4-year schools had the opportunity to provide feedback and comments on the drafts and that the Chief Academic Officers at Missouri Higher Education institutions also provided feedback during the process.

Faculty who were not institutional representatives for MoDEC nor otherwise involved in the group did not experience the same level of involvement in the policy

document drafting process. All other faculty stated that they were not involved in the MoDEC workgroup that provided input on the policy document.

Workgroup constituent representation. Eva expressed regret at not having been involved in the MoDEC discussions because she felt that there was more math than English representation on MoDEC, and, as a result, placement instrument choices were geared more toward the needs of mathematics than writing. She said that it was her perception that “when legislators decided to do this, they didn’t know how to connect with the faculty, with the colleges themselves. And MODEC was out there and they just kind of latched onto them.”

Other faculty stated that they were not involved but did not feel concern at their lack of involvement because they felt that they were represented by their constituent groups. From the math perspective, Janine also wanted appropriate representation for her discipline, and as long as the workgroup included “state math leaders,” she felt that she did not personally need to be involved in the discussions.

I don’t need to be there to draft anything. But I do want representation there. Representation from our state math leaders, and there are many of those to choose from. It’s just like government—I don’t need to go to Washington to tell people what to do. We elect people to do those things, to represent us. So I’m okay with that, but I’m not okay with politicians who don’t know math making decisions about what needs to be done in the math classroom. That I am not okay with. But as long as they are pulling the right people into the discussion in this room...I don’t have a problem with that.

Tummers (2011) notes that public professionals may not feel the need to be involved in the policy development, as long as they have confidence that their representative group or professional association has influence during the process. In responding to the question regarding involvement in the drafting of the implementation process, Bryn said that “it’s understandable that not everyone can be involved,” adding that “they found a group of people to do that, who are made up of representatives from various schools. And that makes sense, from a practical point of view.” Bryn said that she stayed informed through the MoDEC listserv, but was comfortable with constituent representatives making decisions during the workgroup process.

However, she noted that in addition to MoDEC, “it may have made sense to use other developmental educational groups, MRADE for example.” Bryn said that she received an email from a colleague who expressed concerns “about MoDEC being the entity to convey information to the chief academic officers” regarding the review and research component of the statewide placement scores. Bryn agreed that it was concerning that two-year associations for English, math and reading were not brought in “to at least work with MoDEC...provide input with MoDEC.” She recommended that, in the future, groups such as the Midwest Regional Association for Developmental Education (MRADE), the College Reading and Learning Association (CRLA), the National College Learning Association (NCLCA), the Association for Professional Tutoring (APT), the Missouri Community College Association (MCCA), as well as any other association in the state that is concerned with developmental education “in community colleges, in particular, instead of just working through one entity.”

Implementation timelines. In response to the question regarding implementation timelines, Eva stated, “We’ve been told that we have to have our ducks in a row this fall [Fall 2015].” Most faculty, however, were either unsure about any timelines or stated that they were not involved at the level at which timelines were established. Some faculty felt that timelines were a “non-issue” because they felt that their institution was moving forward and was, from their perspective, already in compliance with the policy mandates. In response to the question regarding timelines, the adjunct faculty member stated, “I really had no input, no idea that anything had changed.”

Research sub-question #3. The third research sub-question, “How do community college faculty perceive their degree of choice in the implementation process at their institution?” corresponds to Tummers’ Operational Power sub-dimension (Tummers, 2010). The intent of this research question was to determine the faculty members’ perceptions of their perceived degree of choice in the implementation process at their institution. Themes that emerged from the Missouri data indicated that faculty who were involved in the institutional implementation processes felt comfortable with their level of involvement, that their input was valued, and that they were supported by administration. They felt that their level of involvement was appropriate to their desire to participate. Those who stated that they were not involved expressed disappointment at their level of involvement. Adjunct faculty were not involved in the institutional implementation processes and expressed disappointment at not being included.

Most of the Missouri faculty indicated that they felt very involved in implementing the policy mandates processes at their institution. Their stated roles included gathering student success data, establishing/protecting placement measures, participating on

committees to discuss multiple measures, and working to ensure consistency and compliance with the policies. Faculty who indicated involvement in implementing the mandates expressed positive feelings regarding that involvement. Tiffany stated that her input was “valued.” Other faculty said that they felt as involved as they wanted to be and that their voices had been heard, stating that they were pleased with the level of support and trust they received from administration. Eva said she was comfortable with her level of institutional involvement, adding, “I think there is a level of trust there between us and the administration. We have told them ‘This is what we need to succeed,’ and they’re willing to back us. So far, so good.”

Faculty who indicated that they were not involved with the institutional implementation felt some level of disappointment that they were not consulted or asked to participate. Donna felt that her expertise had not been utilized, saying that because very little discussion had taken place, she essentially had “no role” and adding that she felt the institution was “missing the opportunity” for her perspective: “I have a long involvement with developmental education,” she said. “I have a broad-based national, regional, and state perspective on best practices in developmental education, and I feel that my expertise has been ignored or not consulted.”

Andrea, an adjunct faculty member, likewise indicated that she had not been brought into any discussions or asked to participate in institutional implementation decisions or processes. She said that, as a result, she felt “disconnected,” and added that it would have been nice to have been involved and shared ideas with the full-time faculty.

Research sub-question #4. The fourth research sub-question, “How do community college faculty perceive the value of the policy to improvement of

developmental education outcomes in their state?” corresponds to Tummers’ Societal Meaning sub-dimension (Tummers, 2010). Themes that emerged from the Missouri data indicated that faculty were uncertain how the policy mandates would affect developmental education in Missouri, stating that more time to implement best practices and measure results is needed, along with better alignment with K-12 preparation and college readiness. They did feel that the establishment of a threshold would be beneficial to overall student outcomes and that the legislation has brought discussion regarding developmental education to the forefront in Missouri.

Developmental delivery. Faculty consistently indicated that they were unsure how the HB 1042 policy mandates would change the delivery of developmental education across the state. Some faculty indicated that the placement process “confused everyone,” perhaps because there had been “a lack of cohesive conversation” regarding it. Bryn said,

I think placement affected the delivery...Those schools that interpreted the bill to say they had to use the ACT as a primary device for placement of students...They’re going to have students that don’t test well who are very good writers, proficient writers, and they’re [placed] in developmental classes. And they’ll also have students who test very well but aren’t proficient writers but are in composition courses. When you’re teaching mixed level classes, what happens is you’re teaching multiple classes in one room.... And that is going to affect students in their pass rate.

Some faculty stated that they were “not sure” how the legislation had affected delivery but agreed that it had increased discussion of developmental education across the

state. Janine said that although she couldn't speak for the entire state, she felt that developmental education had been brought "to the forefront": "I can only speculate on Missouri as a whole, but I think it's bringing it more to the forefront...I think there's more discussion about it now than there was. I don't know. It's hard to speak for everybody in Missouri." Donna felt that it was too early to make a determination, stating, "I think it's hard at this point to say how it's going to change." She stated that more time is needed to implement the best practices identified in the policy, as well as the comprehensive review that is part of the policy, before a determination can be made regarding the policy's effectiveness. "When you're in the middle of the process," she said, "you only get a tiny perspective or a perspective on a part of the process."

Statewide developmental student outcomes. Faculty perceptions regarding student outcomes statewide varied widely, but two clear themes did emerge: They felt that the implementation of a threshold, or floor, was a beneficial part of the legislation in terms of student outcomes, as was the K-12 alignment. Faculty, across the board, felt very strongly that the threshold, which is part of the policy document that has yet to be implemented in Missouri, will produce improved student outcomes for the state. They felt that not having a threshold was setting up the lowest level students for failure when they might be successful in other types of training programs. Tiffany felt that the threshold would be beneficial to student outcomes, saying that "It's much better that we have a threshold and that we don't just have the open door policy for everybody because we're then setting [the students] up for failure, and that's not what we want to do as faculty. We want to help them to succeed." Donna, too, expressed concern regarding the current Missouri open door policy that allows any student to enroll in developmental coursework.

From her perspective, allowing them to do so is questionable, both morally and ethically: “There’s a question of moral and ethical treatment of such students, having their money taken to enroll in college level classes or college classes for remediation/ developmental education when there’s no chance of them succeeding.”

Although the threshold portion of the policy has yet to be implemented in Missouri, in part because threshold scores have yet to be established, the faculty participants were clearly in favor of it, from a student success perspective and a resource perspective. Janine pointed to the time, effort, and funds being spent on the lowest level students while she also considered alternatives for them, saying, “I’m not trying to be harsh—I’m just being realistic. We could be spending more time guiding and redirecting them to the path that suits their strengths....So I think it’s good. I think you need some entrance requirements.”

The faculty felt that if the K-12 alignment is successfully implemented, then student outcomes across the state will be positively affected. Donna noted, however, that “Cooperation is sometimes very hard to come by,” in partnerships between high education and K-12 schools. She said that “If you cannot bridge that gap and make that alignment and transition seamless, then I don’t think it will make a bit of effect on developmental education and the number of students who have to take developmental courses in Missouri.” The adjunct faculty member said she couldn’t answer the question because she was unsure of what changes were being mandated.

Research sub-question #5. The fifth research sub-question, “How do community college faculty perceive the effects of the policy on students?” corresponds to Tummers’ Client Meaning sub-dimension (Tummers, 2010). Themes that emerged from the

Missouri data indicated that faculty perceptions were mixed in terms of how the legislation and accompanying MDHE policies would affect their students. Faculty perceptions ranged from beneficial current and future effects on student success to detrimental current and future effects on student success, with some faculty indicating that the policies would not significantly change student success, either positively or negatively. English faculty expressed concerns about the lack of clarity in the multiple measures area of the policy. They also felt that the placement measures may have been developed around mathematics and would not translate well when applied to writing. Faculty supported a threshold as a positive benefit to their students.

Perceptions of benefit. As stated above, faculty perceptions of the effect of the legislation on their students varied widely and were frequently tied to specific items in the *Best Practices in Remediation* document. Some felt that the legislated changes would be beneficial. For example, Donna thought her students would be more successful if the policy changes, in general, are implemented “following best practices.” Janine said that the policies could have a positive effect, but only if the K-12 alignment is addressed, saying, “We can’t do in one or two semesters what they failed to accomplish in twelve years.” Janine added that developmental educators should begin address the non-cognitive issues that create barriers to student success, while acknowledging that the HB 1042 policies appear to help move such initiatives forward.

They’ve got issues at home they’re dealing with. They’ve got psychological issues...they’ve got medication they’re trying to work out. They’ve got, maybe, housing problems, and they don’t have a place to live. They don’t have study skills. They don’t know how to be

successful....That's, I think, our next area to address, and I don't know how we will address it. But that seems to be part of this House Bill. So, that was really the only thing that will kind of guide us moving forward from where we are right now.

Full-time faculty were very supportive of the threshold piece of the *Principles of Best Practices in Remediation* policy document as a positive benefit to students.

Referring to the threshold, Tiffany said that she has taught at institutions that did have a threshold and some that did not and found the threshold to be beneficial: "I think in the long run it will be good for the students...because they will be placed with people who are at a similar level, who score the same, and they can really work with progressing and learning."

Perceptions of detriment. English faculty indicated that the policies would negatively affect their students. Eva felt that there was "much obfuscation" in the multiple measures area of the *Best Practices in Remediation* document. The faculty also felt the placement measures/instruments were not ideal for writing. Bryn said, "My students have been affected already. They don't have a community of students who are in a similar skill set...and that is detrimental to their ability to advance. I think it will negatively affect my students, and I think it already has."

Neutrality. Some faculty thought that the mandates would have little effect, either positive or negative. Maura said that her own professional development and pedagogical approaches were more important to her students' success than the policy mandates, stating, "It's not the legislature that's going to affect my students. It's what I learn from various sources—certainly by going to AMATYC, by listening to my colleagues." The

adjunct faculty member said that she was unsure how the policies would affect her students because, again, she hadn't been "informed of any change."

Second cycle findings/central research question. Second Cycle coding was used to address the study's main research question, "How do community college faculty perceptions of their involvement in the design of developmental education legislation and policies, as well as their perceptions of their involvement in the policy implementation process, affect their willingness to implement instructional change?" In the second cycle, data were coded in two provisional categories: Change Willingness and Change Resistance. Sub-codes that emerged were then correlated to Tummers' (2010) sub-dimensions.

Change willingness. Themes that emerged from the Missouri data indicated that Change Willingness was demonstrated when faculty perceived that

- compliance with the mandates was not optional (Strategic Powerlessness);
- they experienced high levels of influence during the state workgroup meetings (Tactical Power);
- they experienced high levels of influence, autonomy, and support in implementing the changes at their institution (Operational Power);
- the changes would reap benefits to higher education in their state (Societal Meaning); and,
- the changes would reap benefits to their students (Client Meaning).

Strategic power. The data showed that faculty demonstrated change willingness associated with strategic power when they perceived that compliance with the mandates was not optional. Tiffany said that she feels her role in the institutional process is to make

sure that her department looks at the policy and “adhere[s] to that.” As a result of that role, she says she has been “making all kinds of changes.” Bryn also indicated the importance of being in compliance with the law. The English faculty were very aware of the need to comply with the mandates and expressed concern that a lack of clarity in the policies in regards to placement made it difficult, initially, to know if they were in compliance in that area or not. After more discussion at MoDEC meetings, they were reassured that their placement methods were, in fact, in compliance. Bryn said, “I feel like my role in implementing this is trying to find a way to protect our very effective placement method and abide by the law. And I think I’ve done that. I think *we* have done that. And when I say “we,” I mean the administrators and faculty at [---].”

When discussing how he felt about his lack of involvement with the development of the legislation, Michael said, simply, “We have to do this kind of thing.” As with the Connecticut policy compliance willingness, this instance of change willingness was coded as strategic powerlessness because the faculty did not institute the changes of their own volition. It’s more likely that they adopted the changes because not doing so would result in repercussions or some execution of punishment for deviation from the rules (Gouldner, 1954).

Tactical power. The faculty demonstrated change willingness associated with tactical power when they experienced high levels of influence during the state workgroup meetings. Faculty who had direct input as MoDEC members during the workgroup meeting where HB 1042 was discussed and feedback given to the Missouri Department of Higher Education seemed most comfortable with changes outlined in the *Best Practices in Remediation* document. Although Donna did not specifically mention the

word “change,” her praise for the Department of Higher Education and their willingness to solicit input from the MoDEC group, along with her later statement that students would be successful if the best practices in the document were successfully implemented, suggest that she experienced change willingness as a result of having experienced tactical power during the workgroup discussions.

Operational power. The faculty demonstrated change willingness associated with operational power when they perceived that they experienced high levels of influence and autonomy in implementing the changes at their institution. The faculty overwhelmingly exhibited a willingness to make changes at their institution to address best practices in developmental education, and most indicated that they received positive institutional support. However, it is difficult to correlate those changes to the policy mandates, as the faculty also clearly indicated that they felt their institution was ahead of the policy mandates and had been initiating best practices in developmental education for years. Janine said, “We have been really a bit ahead of this bill here at my school. We’ve been working on best practices since about 2007. Honestly, anything that they’ve done, I don’t feel has affected me at all at this point.” She indicated that the faculty regularly conducted research and attended conferences to stay up-to-date with instructional best practices:

If you’ve got a smaller group of people—who are like minded, who have been to conferences, who have done our research, who have read the research—you can move in a direction rather quickly. I think that’s one reason that we’re sort of ahead of the curve as far as the state goes.

Maura's comments were very similar. She said, "We try very hard to do that [implement best practices].... So, again, it hasn't changed so much what we do. It isn't that we haven't changed. It's that [the legislation] wasn't our motivation to change. We were doing it anyway."

In response to questions regarding the implementation timeline, faculty indicated that they didn't find a timeline especially relevant because their institution was already in compliance. Janine said, "No one has said you need to do this by such and such a date. If they have, I missed it. We've already been moving forward anyway, so I don't feel like we need a timeline because we're already doing it." Maura concurred, saying that "Either our administration did not inform us well [regarding the timeline], or we were correct that we were already in compliance. So, it's really been kind of a non-issue for us."

The English faculty felt that they had confirmed that their "very effective placement policy" was already in compliance with the state mandates. Faculty across the three discipline areas supported a placement threshold as a best practice that provided benefits to students and instruction. Some faculty suggested that their institution already has a type of threshold in place, with Janine stating, however, that it is "basic—it's very basic."

Societal meaning. The faculty demonstrated change willingness associated with societal meaning when they perceived that the changes would reap benefits to developmental education in their state. The faculty demonstrated clear willingness to implement change when change was linked to a socially relevant goal. The Missouri faculty associated the threshold with socially relevant goals, in terms of instructional consistency and use of resources. Tiffany said that the threshold will insure instructional consistency because the lowest level students generally don't have the skill set needed to

pass the classes. She said that not having a threshold also “puts all the faculty into a difficult position when they have to tell the student, ‘You can’t pass this class; you don’t have the ability.’”

Janine noted the significant amount of time and money that is spent on the students who start in the lowest level classes when “maybe about ten percent of them are going to make it through their four-year degree.” She added that the state could be spending more time “guiding and directing them to the path that better suits their strengths” while keeping seats available to students who have the ability to benefit from the instruction:

You know we’re all going to knock our heads somewhere and change our path. So I think it’s good. I think you need some entrance requirements because these students are going to have to understand that “I have to reach some level of skill set before I can go in and take somebody else’s seat in this classroom.”

Client meaning. The faculty demonstrated change willingness associated with client meaning when they perceived that the changes would reap benefits to their students. Faculty demonstrated willingness to change in the Client Meaning sub-dimension, again, in relation to the threshold. Faculty supported the statewide threshold, questioning the ethics of taking tuition money from students who often had the least. Donna noted that dealing with students who are often “underprepared and poor” is “another portion of the ethical and moral dilemma” of open access institutions “taking money from people over and over” when the students typically will not reach college level courses and, “if they do, they’ve run out of money.” The faculty felt that guiding the lowest level students to other types of job training programs, “where they can achieve

and feel successful” (Tiffany) would be to their benefit. It is important to note, however, that depending upon the cut scores that are established, a statewide threshold may not represent a significant change at this institution, which, according to some faculty, already has a “very basic” threshold in place.

Change resistance. The Missouri faculty demonstrated Change Resistance only when they perceived that the changes would have negative effects on their students. The faculty exhibited change resistance when they perceived that the changes *might* have negative effects on their students (Client Meaninglessness) in two areas: appropriate placement into coursework and standardization across institutions. Bryn said she initially was concerned that the placement guidelines outlined in the *Principles of Best Practices in Remediation* document would not allow her institution to continue its current, highly-effective writing placement practices. This caused her some consternation until she learned that her institution was “well within the law.” She said, “I felt protective of our methodology, which includes various ways of placement, not just the ACT. But it was clarified that we are well within the law. I think that speaks to the divided interpretation of the law.” She added that “that little squabble, about whether we have to use the ACT” was “really concerning” to her and is an example of how the policy mandates might lead to standardization, which she notes is not fair because students in different demographic areas have different needs:

That’s what I don’t like about the Missouri House Bill. Any bill that mandates uniformity and standardization is concerning to me because each school has its own demographic, each school has its own set of issues. Each school has its own identity, and in my opinion, I think that we all

need the ability to do what works for our students....and not always, but increasingly, developmental learners are from disenfranchised communities. So there are certain programs and certain ways of doing that that will work for us that may not work for other people....It's this idea that standardization is fair that is a bad idea. Standardization is not necessarily fair.

Summary. Table 4.4 illustrates the relationship of Change Willingness to Change Resistance in each of the Connecticut sub-dimension thematic areas:

Table 4.4.

Missouri Participant Change Willingness/Change Resistance

Missouri	
<i>Change Willingness</i>	<i>Change Resistance</i>
Strategic Power (Rules/Legal Compliance)	-----
Tactical Power	-----
Operational Power	-----
Societal Meaning	-----
Client Meaning	Client Meaninglessness

Case-to-Case Comparisons

A comparison of the two cases, the Connecticut community college and the Missouri community college, illustrates that despite differences in legislation, governing body implementation processes, and demographics, the case-to-case faculty perceptions are similar across the majority of the sub-dimensions.

Legislation/policy implementation. Although the developmental education legislation at Connecticut and Missouri was passed just days apart and went into effect

less than two months apart, the content of the policies differs considerably. The Connecticut legislation is more prescriptive, specifying placement (multiple measures) and pedagogical approaches (embedded support, intensive college readiness programs) and limiting non-embedded remedial coursework to one semester. The Missouri legislation is more open to interpretation, stating that institutions must “replicate best practices in remediation” (MDHE, 2016a, par. 2) and reduce ineffective remediation methods, while noting that the interpretation of those best practices is at the discretion of the coordinating board and institutions (Missouri House of Representatives, 2012). The Missouri legislation includes a data reporting requirement. Both states require K-12/college readiness curricular alignment. Connecticut’s Substitute Senate Bill 40, Public Act 12-40 was approved on May 31, 2012, and went into effect on July 1, 2012. Missouri House Bill 1042 was approved on June 7, 2012. The Missouri Department of Higher Education notes that “Portions of the law went into effect on August 28, 2012 while the remaining sections await the outcome of the rule making process.” (MDHE, 2016a, par.1). Appendix A. illustrates the similarities and differences in the remediation areas of the laws.

Connecticut and Missouri Policy Implementation. The Connecticut State Colleges & Universities Board of Regents for Higher Education (CSC & U Board of Regents) website provides a link to a PA 12-40 overview document titled *Connecticut Public Act 12-40 An Act Concerning College Readiness and Completion, Topics: Remediation, Placement, High School/College Alignment*. The document is structured in a “Frequently Asked Questions” format and provides clarification regarding what the law *does* (requires that Connecticut higher education institutions “reconfigure” how they

deliver remedial/developmental education and requires that high schools align their curriculum with the Common Core) and *does not do* (“does NOT eradicate remedial/developmental education”) (CSC & U Board of Regents, 2013, p.1). The document also provides a rationale for the legislation and provides a simplified explanation of the three primary levels of remedial/developmental education allowed by the law: 1) college-level, 2) college-level with embedded support, and 3) intensive college-readiness program or one semester of a remedial course (CSC & U Board of Regents, 2013, p.1). Multiple measures placement is addressed, as well as funding (College Access Challenge grant) and tracking of outcomes (CSC & U Board of Regents, 2013, p. 2).

Although the Missouri legislation is less prescriptive than the Connecticut legislation, the Missouri Department of Higher Education (MDHE) *Coordinating Board for Higher Education, Principles of Best Practices in Remedial Education* policy document resulting from the “rule making process” (Missouri Department of Higher Education (MDHE), 2016a, par.1) is somewhat specific. It provides guidelines established by the Coordinating Board for Higher Education and Missouri two-year and four-year higher education institutions. The “Guidelines for Best Practices in Remediation” section of the MDHE document includes secondary and post-secondary curriculum alignment, remedial/developmental course content and outcomes alignment, statewide minimum assessment standards for college-level course placement, multiple measures of placement for student readiness assessment, remediation acceleration, appropriate gateway course pathways (particularly in mathematics), and alternate course delivery methods (MDHE, 2014a). An “Assessment and Placement” section notes that multiple measures of placement must be utilized (MDHE, 2014a). In this section, a table

of subject matter gateway course placement scores is provided for several standardized testing instruments. The policy states that *if* an institution chooses to use one of those assessments, adherence to the scores provided is required (MDHE, 2014a).

Similar to Connecticut's PA 12-40 legislation, section 5.4a of the MDHE document states that "institutions *must* [emphasis mine] use multiple measures to assess student readiness for gateway courses and programs of study" (MDHE, 2014a, p. 4). Other areas of the "Guidelines for Best Practices in Remediation" section of the document also use the word "must," such as those related to curriculum alignment and assessment; however, references to pedagogical approaches use softer verbiage, such as "should" and "may" (MDHE, 2014a, pp. 3-4). Section 10.0 of the *Principles of Best Practices in Remedial Education* policy document is particularly noteworthy. This section, titled "Minimum Standards of Academic Competence," provides for a "Statewide Degree-Seeking Placement Threshold" (MDHE, 2014a, pp. 8-9). Students whose placement assessments are below the threshold will not be allowed to enroll in any credit-bearing coursework (MDHE, 2014a, pp. 8-9). The threshold scores have yet to be determined; therefore, this initiative has yet to be implemented.

Workgroups/collaborations. Higher education governing boards in both states created workgroups or task force groups to assist with the implementation process. A review of Connecticut Board of Regents minutes indicates that at least five workgroups were established in response to the PA 12-40 legislation: a PA 12-40 Advisory/Steering Committee (CSC & U Board of Regents Academic & Student Affairs Committee, November 2, 2012) and four Regional Strategies workgroups, one for each of four geographical regions (CSC & U Board of Regents Faculty Advisory Committee,

September 14, 2012). In their narratives, certain faculty also reported participating in a College Access Challenge Grant workgroup. The *Connecticut Public Act 12-40, An Act Concerning College Readiness and Completion, Topics: Remediation, Placement, High School/College Alignment* document mentions collaborations with the State Board of Education and the Educator Preparation Advisory Council (CSC & U Board of Regents, 2013, p. 2). Connecticut State College and Universities Board of Regents (CS & U, BOR) minutes indicate that discussions regarding the legislation and implementation took place during numerous CS & U, BOR committee meetings. The following examples, while far from inclusive, provide evidence of those discussions: Board of Regents (BOR) Academic & Student Affairs Committee meetings (CS & U, BOR Academic & Student Affairs Committee, November 2, 2012; CS & U, BOR Academic & Student Affairs Committee, December 6, 2013), Faculty Advisory Committee meetings (CSC & U Board of Regents Faculty Advisory Committee (CSC & U BOR FAC minutes, April 13, 2012; CSC & U BOR FAC minutes, September 14, 2012), and Student Advisory Committee meetings (CSC & U Board of Regents Student Advisory Committee, October 12, 2012).

The Missouri Department of Higher Education (MDHE) Taskforce on College and Career Readiness was established in 2012, prior to the passage of HB1042 and “worked alongside MDHE staff to develop a policy that outlines best practices in the delivery of remedial education” (MDHE, 2016b). In addition, MDHE worked with the Missouri Developmental Education Consortium (MoDEC), the Department of Elementary and Secondary Education (DESE), and the Smarter Balanced Assessment Consortium (SBAC) during the legislative implementation process (Plemons, 2015).

Funding. The Connecticut General Assembly provided funding to support the PA 12-40 developmental education initiatives. The 2013 funding included \$250,000 for course development (Senserrich, 2014) and \$2 million for community college pilot program implementation, including funds to add new faculty and guidance counselor positions (CSC &U BOR, Academic & Student Affairs Committee, Dec. 6, 2013; Senserrich, 2014). The Board of Regents provided an additional \$200,000 for level 3 transitional models development (CSC &U BOR, Academic & Student Affairs Committee, Dec. 6, 2013; Senserrich, 2014). Some of the funds may have been received from a U.S. Department of Education College Access Challenge grant. While the Missouri *Principles of Best Practices in Remediation* policy document recommends that the state provide funding to improve college readiness and provide support for initiatives that facilitate underprepared student success (Missouri Department of Higher Education, 2014a), it is unclear at this time whether Missouri has made any additional monetary investments toward this end.

Table 4.5 provides a side-by-side comparative overview of the governing board implementation processes for the remediation/developmental education legislation in Connecticut and Missouri.

Table 4.5.*Connecticut and Missouri Policy Implementation Procedures*

<i>Connecticut State Colleges & Universities - Board of Regents for Higher Education</i>	<i>Missouri Department of Higher Education – Coordinating Board for Higher Education</i>
<i>Connecticut Public Act 12-40 An Act Concerning College Readiness and Completion, Topics: Remediation, Placement, High School/College Alignment</i>	<i>Coordinating Board for Higher Education, Principles of Best Practices in Remedial Education</i>
Workgroups/Collaborations: <ul style="list-style-type: none"> • PA 12-40 Advisory/Steering Committee • (4) Regional Strategies Workgroups • College Access Challenge Grant Workgroup • State Board of Education • Educator Preparation Advisory Council 	Workgroups/Collaborations: <ul style="list-style-type: none"> • MDHE Taskforce on College and Career Readiness • Missouri Developmental Education Consortium • Department of Elementary and Secondary Education • Smarter Balanced Assessment Consortium
Funding: Approximately \$2.5 million, combined, from the Connecticut General Assembly and Board of Regents/College Access Challenge Grant	Funding: Unclear at this time whether Missouri has made any additional monetary investments to aid implementation of HB 1042 mandates

Connecticut and Missouri Case Demographics. The two associate degree-granting institutions case institutions are similar in size. The Missouri community college is a single-campus institution; the Connecticut community college is part of a state-wide multi-campus system. The Connecticut institution houses developmental education in its own department with English and Mathematics faculty. Following the passage of PA 12-40, reading instruction is embedded, only, and no longer offered as stand-alone coursework. The Missouri institution houses developmental mathematics in its own department. Reading is also its own developmental department. The developmental writing coursework and instruction are housed within the English department. The Missouri faculty, combined, have significantly more years of teaching experience than the Connecticut faculty, combined, including more years of experience in teaching

developmental education. Table 4.6 provides a side-by-side comparison of these and additional institutional and participant demographics.

Table 4.6.

Connecticut and Missouri Case Demographics

Institutions	
<i>Connecticut</i>	<i>Missouri</i>
Associate degree-granting institution	Associate degree-granting institution
State-wide multi-campus public system	Public, single-campus institution
8,200 students (approx.)	7,100 students (approx.)
Developmental Education Department	Developmental Math Department
Participants	
<i>Connecticut</i>	<i>Missouri</i>
8 full-time faculty	7 full-time faculty, 1 adjunct faculty
4 English/4 mathematics	2 English/2 reading/4 mathematics
Total combined teaching years (full and part-time): 113	Total combined teaching years (full and part-time): 174
Total combined developmental teaching years: 105	Total combined developmental teaching years: 169
Total teaching years range: 5-24 years	Total teaching years range: 9-35 years

First cycle findings/themes, comparisons. Numerous cross-case similarities in faculty perceptions emerged from the data. In some instances, faculty narratives were remarkably similar across the institutions. The following quotes in which the faculty shared how they motivate students demonstrate one example of similarities. Alan (Connecticut), said, “I try to start off...[the class] by saying, ‘The state is making an investment in you by running this class almost at a loss because they believe that you can go forward and you can do this.’” Eva (Missouri), stated that she tells her students:

“I want you take [the class] seriously. It costs much more for you to be here than what you are paying in tuition, and I want you to think about the fact that the county is investing in you and the state is investing in you.”

Although many cross-case similarities among faculty perceptions regarding their level of involvement did emerge from the data, differences also appeared within the themes as they correlate to Tummers' sub-dimensions.

Strategic power. In the strategic power sub-dimension, themes were very similar across both institutions, with the exception of some Missouri faculty indicating that they were aware of the legislation in their state and had opportunities for providing input.

Table 4.7 provides a side-by-side illustration.

Table 4.7.

Strategic Power Comparisons

<i>Tummers' Sub-dimension</i>	<i>Connecticut</i>	<i>Missouri</i>
Strategic power	Faculty were unaware of the legislation until it was too late to influence its passage.	Faculty who were associated with MoDEC were highly aware of the pending legislation; those who were not involved with MoDEC had little awareness.
	Faculty were not involved in the development of the legislation.	Most faculty indicated that they were not involved in the drafting of the legislation.
	Faculty satisfaction with their level of involvement varied.	Faculty satisfaction with their level of involvement varied.
	Adjunct faculty were neither informed about the legislation before it was passed nor involved in the drafting of it.	Adjunct faculty were neither informed about the legislation nor involved in its drafting and expressed disappointment at not being included in the discussions.

Tactical power. In the tactical power sub-dimension, themes varied considerably. Connecticut faculty, as a whole, were more involved in state workgroup discussions, but while some felt that they were able to exert influence during the decision-making process, others felt somewhat disenfranchised during their participation. In Missouri, faculty who were MoDEC representatives indicated that they were involved in the workgroups. Table 4.11 provides a side-by-side illustration. Missouri faculty who were not involved were satisfied with their level of involvement, as long as they felt that their constituent groups

were represented. Connecticut faculty were highly aware of the legislation and the implementation timelines. Missouri faculty had less awareness of the parameters of the legislation, as a whole, and were typically unaware of timelines. Adjunct faculty were not involved in workgroups. No information was available regarding adjunct perceptions at the Connecticut institution; adjunct faculty at the Missouri institution were disappointed that they were not asked to participate. Table 4.8 illustrates the side-by-side comparisons.

Table 4.8.

Tactical Power Comparisons

<i>Tummers' Sub-dimension</i>	<i>Connecticut</i>	<i>Missouri</i>
Tactical Power	Faculty were well represented on statewide workgroups.	Faculty who were involved with MoDEC were also involved with the drafting of the CBHE policy document that interpreted the legislation.
	Faculty perceived level of workgroup influence varied, from high to low.	Those who were not involved with MoDEC were not concerned about their own lack of involvement but were concerned that their departmental or discipline constituent group had representation.
	Faculty were highly aware of the implementation timelines and changes.	Most faculty were unaware of any implementation timelines.
	Based upon anecdotal information, adjunct faculty were not involved in the policy development discussions. No information was available to gauge adjunct faculty feelings regarding their level of involvement.	Adjunct faculty were not involved in policy discussions and expressed disappointment at not being included.

Operational power. In the operational power sub-dimension, themes again varied, though not as much as in the tactical power sub-dimension. Faculty at the Connecticut institution felt highly involved in the implementation processes at their institution and enjoyed a high level of autonomy and institutional support. Those who were not involved were satisfied with their level of involvement and praised their colleagues for their work. Anecdotally, adjunct faculty had limited involvement in any decision-making. At the

Missouri institution, faculty who were involved in the institutional implementation were pleased with their involvement and felt valued and supported by administration. Full-time faculty who were not involved expressed disappointment with their lack of involvement, as did adjunct faculty, who were likewise not involved. Table 4.9 provides a side-by-side illustration.

Table 4.9.

Operational Power Comparisons

<i>Tummers' Sub-dimension</i>	<i>Connecticut</i>	<i>Missouri</i>
Operational Power	Nearly all faculty were highly involved in the implementation processes at their institution and expressed clear engagement and satisfaction with their involvement.	Most faculty were involved in the institutional implementation processes and expressed satisfaction with their involvement.
	Faculty who were not involved were satisfied with their level of involvement.	Faculty who were not involved expressed disappointment at their level of involvement.
	Faculty experienced high autonomy and institutional support in decision-making, as well as administration support.	Faculty who were involved in the institutional implementation processes felt that their input was valued and that they were supported by administration.
	Anecdotally, adjunct faculty had limited input during institutional implementation processes. No information was available to gauge adjunct faculty feelings regarding their level of involvement.	Adjunct faculty were not involved in the institutional implementation processes and expressed disappointment at not being included.

Societal Meaning. In the societal meaning sub-dimension, themes across the two institutions varied considerably. Faculty at the Connecticut institution identified numerous benefits to developmental education in their state. The Missouri faculty were uncertain what effect the legislation might have on developmental education in their state. Two exceptions did emerge—the threshold, which they found highly beneficial, and the increased emphasis on K-12 college readiness alignment. They also noted that the

legislation had increased discussion regarding developmental education in their state.

Table 4.10 provides a side-by-side illustration.

Table 4.10.

Societal Meaning Comparisons

<i>Tummers' Sub-dimension</i>	<i>Connecticut</i>	<i>Missouri</i>
Societal Meaning	Increased professional development for all faculty – beneficial	Faculty were uncertain how the policy mandates would affect developmental education in Missouri, stating that more time is needed, as well as improved clarity in placement measures.
	Improved instructional consistency – beneficial	Establishment of a “threshold” (minimum standards of academic competence) would be beneficial.
	Increased adjunct turnover, resulting in “new blood” – beneficial	K-12 alignment will be beneficial.
	Paid professional development for adjunct faculty – beneficial	Legislation has brought discussion regarding developmental education to the forefront in Missouri.
	Additional instructional resources - benefit	
	Improved completion rates – beneficial	
	Increased funding – beneficial	
Improved college readiness alignment with the high schools – beneficial		

Client Meaning. In the client meaning sub-dimension, faculty perceptions again varied considerably across the two institutions. The Connecticut faculty indicated that the legislation would benefit their students in several ways. Acceleration for the lowest level students, which the faculty found to be detrimental, was the exception. Missouri faculty perceptions of client meaning were mixed, but they did clearly feel that the threshold, which would affect the lowest level students, would be beneficial. English faculty felt that the multiple measures and placement areas of the policy would be detrimental to their writing students. Table 4.11 provides a side-by-side illustration.

Table 4.11.*Client Meaning Comparisons*

<i>Tummers' Sub-dimension</i>	<i>Connecticut</i>	<i>Missouri</i>
Client Meaning	Acceleration - benefit to most students	Faculty perceptions were mixed (positive, neutral, negative) in terms of how the legislation and accompanying MDHE policies would affect their students.
	Acceleration - detriment to lowest-level students	Lack of clarity in the multiple measures area of the policy – detrimental to writing students.
	Increased student support services - benefit	Placement measures – detrimental to writing students
	Improved faculty-student engagement - benefit	Threshold - benefit to students
	Student trust/empowerment – benefit	

Second cycle findings/comparisons. In the second cycle, data were coded in two provisional categories: Change Willingness and Change Resistance. Faculty willingness to change in response to the legislative mandates was identical across the institutions in all five of Tummers' sub-dimensions. Table 4.12 illustrates the comparisons.

Table 4.12.*Change Willingness Comparisons*

Willingness (Tummers' Sub-dimensions)	<i>Connecticut</i>	<i>Missouri</i>
Strategic Power	Compliance with the mandates was not optional (Strategic Powerlessness).	Compliance with the mandates was not optional (Strategic Powerlessness).
Tactical Power	Faculty who participated experienced high levels of influence during the state workgroup meetings.	Faculty who directly participated experienced high levels of influence during the state workgroup meetings.
Operational Power	Faculty experienced high levels of influence, autonomy, and support in implementing the changes at their institution.	Faculty experienced high levels of influence, autonomy, and support in implementing the changes at their institution.
Societal Meaning	The changes would reap benefits to higher education in their state.	The changes would reap benefits to higher education in their state.
Client Meaning	The changes would reap benefits to their students.	The changes would reap benefits to their students.

In the Change Resistance category, however, clear differences in faculty demonstrations of resistance to change emerged. The Connecticut faculty demonstrated resistance to change in all but two sub-dimensions, Tactical Powerlessness and Operational Powerlessness. However, anecdotally, based upon full-time faculty narratives, adjunct faculty at the Connecticut institution experienced operational powerlessness. The Missouri faculty, on the other hand, demonstrated resistance to change in only one sub-dimension, Client Meaninglessness. Table 4.13 illustrates the comparisons.

Table 4.13.

Change Resistance Comparisons

Resistance (Tummers' Sub-dimensions)	<i>Connecticut</i>	<i>Missouri</i>
Strategic Powerlessness	Faculty had little or no influence on the development of the legislation.	No indicators of resistance in this sub-dimension.
Tactical Powerlessness	No indicators of resistance in this sub-dimension.	No indicators of resistance in this sub-dimension.
Operational Powerlessness	Adjunct faculty, only, experienced low levels of influence and autonomy in implementing the changes at their institution. This information is based upon full-time faculty narratives.	No indicators of resistance in this sub-dimension.
Societal Meaninglessness	The changes would have negative effects on higher education in their state.	No indicators of resistance in this sub-dimension.
Client Meaninglessness	The changes would have negative effects on their students.	Faculty perceived that the changes <i>might</i> have negative effects on their students.

When Change Willingness and Change Resistance indicators are combined, a clear picture emerges of the sub-dimensions in which faculty are most open to or resistant to change brought about by the developmental education legislation in their respective states. Table 4.14 provides this illustration.

Table 4.14.*Change Willingness/Resistance, Summary Comparisons*

Change Willingness	
<i>Connecticut</i>	<i>Missouri</i>
Strategic Powerlessness (Rules/Legal Compliance Willingness)	Strategic Powerlessness (Rules/Legal Compliance Willingness)
Tactical Power	Tactical Power
Operational Power	Operational Power
Societal Meaning	Societal Meaning
Client Meaning	Client Meaning
Change Resistance	
<i>Connecticut</i>	<i>Missouri</i>
Strategic Powerlessness	-----
-----	-----
Operational Powerlessness (Adjunct Faculty)	-----
Societal Meaninglessness	-----
Client Meaninglessness	Client Meaninglessness

The faculty exhibited consistent change willingness across both institutions, but the Missouri faculty exhibited much less change resistance than the Connecticut faculty. The Missouri faculty demonstrated change resistance in one area, only: client meaninglessness. Chapter 5 discusses the case disparities within the resistance area.

Chapter 5: Analysis

Discussion

Although Tummers' later studies reference change resistance (Tummers, 2012; Tummers, 2013), his 2010 policy alienation framework provided the framework for this qualitative study. Tummers' 2010 quantitative study examined change willingness from an inverse perspective, finding that change willingness increased when operational powerlessness, societal meaninglessness, and client meaninglessness decreased. This study examined both change willingness and change resistance and their relationship to faculty perceptions of their level of involvement in the policy implementation and of the policies themselves. However, it examined change willingness correlations using modified versions of Tummers' five sub-dimensions: strategic power (rather than strategic powerlessness), tactical power (rather than tactical powerlessness), operational power (rather than operational powerlessness), societal meaning (rather than societal meaninglessness), and client meaning (rather than client meaninglessness). In the change resistance correlations, the study used Tummers' original five sub-dimensions: strategic powerlessness, tactical powerlessness, operational powerlessness, societal meaninglessness, and client meaninglessness.

This study's findings show that change willingness increases when strategic power decreases when faculty comply primarily to conform to legal mandates that they were unable to influence. Change willingness also increases when tactical power, operational power, societal meaning, and client meaning increase. These findings were consistent across both institutions. Change resistance correlations, however, varied significantly across the two case institutions. In Connecticut, change resistance occurred when strategic powerlessness, operational powerlessness (adjunct faculty, only), societal

meaninglessness, and client meaninglessness increased. At the Missouri institution, change resistance occurred only when client meaninglessness increased.

Tummers’ 2010 study did not examine change resistance; therefore, any change resistance comparisons to any of Tummers’ later findings are not applicable in this study, the framework for which is based upon his 2010 study. Table 5.1 illustrates the comparisons across the two institutions and Tummers’ 2010 findings.

Table 5.1.

Change Willingness/Resistance, Summary Comparisons with Tummers (2010)

Change Willingness		
<i>Connecticut</i>	<i>Missouri</i>	<i>Tummers (2010)</i>
Strategic Powerlessness (Rules/Legal Compliance)	Strategic Powerlessness (Rules/Legal Compliance)	-----
Tactical Power	Tactical Power	-----
Operational Power	Operational Power	Operational Power
Societal Meaning	Societal Meaning	Societal Meaning
Client Meaning	Client Meaning	Client Meaning
Change Resistance		
Strategic Powerlessness	-----	N/A
-----	-----	N/A
Operational Powerlessness (Adjunct Faculty)	-----	N/A
Societal Meaninglessness	-----	N/A
Client Meaninglessness	Client Meaninglessness	N/A

Punishment-centered compliance vs. change willingness. In the strategic power sub-dimension, faculty at both institutions exhibited willingness to make changes associated with the legislative mandates in their respective states when they perceived that compliance was not optional. Although the faculty in both cases demonstrated willingness to change in the strategic power sub-dimension, their language indicated that it was not necessarily of their own volition. They said they had to “abide by the law,” or “meet the law,” or that they did not want to be in “jeopardy of violating laws.” Therefore, this researcher found that the faculty actually demonstrated strategic powerlessness in this area, as they were not willing to make the change of their own accord and were unable to exert influence during the policy-making process.

Tummers (2013) stated that “highly rule-compliant public professionals are less resistant to implementing new governmental policies, irrespective of their content” (p. 108). Birnbaum (1988) explains that community colleges are bureaucratic structures that are heavily reliant upon rules and rule compliance for effectiveness, which may help explain why the faculty emphasized meeting the parameters of the laws. Although faculty may comply with rules, Bastedo (2007) notes that higher education participants can control their workplace surroundings through “ostensibly nonoptimal” behaviors (Bastedo, 2007, p. 303). Similarly, Fowler (2004) suggests that institutional implementers who oppose educational policies may exhibit token compliance or quietly sabotage implementation efforts through such behaviors.

In his study, Gouldner (1954) introduced the pattern of Mock Bureaucracy, building upon Weber’s previous work, which contrasted representative bureaucracy versus punishment-centered bureaucracy (Weber, 1947/2012). Gouldner maintained that

in order for bureaucratic rules to be effective, they should be achieved through implementer buy-in. He further emphasized that legitimacy of the policy goals from the stakeholder perspective is important; for example, a goal embraced by administration as rational and expedient might be rejected by the front-line implementing professionals who see it as neither rational nor expedient (Gouldner, 1954).

Strategic powerlessness as expressed by the faculty in this study conforms to two of the factors identified by Gouldner as representative of Mock Bureaucracy: 1) “The rules are imposed on the group by some ‘outside’ agency. *Neither* workers nor management, neither superiors nor subordinates, identify themselves with or participate in the establishment of the rules or view them as their own,” and 2) “Neither superiors nor subordinates can, ordinarily, legitimate the rule in terms of their own values” (Gouldner, 1954, p. 216). Although the faculty at both institutions were committed to carrying out the letter of the law, in some instances, they did so with regret because the laws were not consistent with their values or perceptions of student benefit. Diane, in referring to the lowest level developmental students at her institution, explained this regret, saying that she felt “sad” that she couldn’t meet the needs of those students *and* meet the law, but added that she “did an awesome job of meeting the law.” Diane was compliant in this instance but clearly not engaged.

In order for change to be successful, it should be transformative, influencing not only stakeholder actions but their attitudes, as well (Cejda & Leist, 2013). Because the changes within the Strategic Power sub-dimension were not executed of the faculty members’ own volition nor are they necessarily representative of the faculty members’ own values, the faculty change willingness comes with a caveat. In such instances, the

faculty may perceive themselves as subject to punishment-centered bureaucracy (Gouldner, 1954) and thus fear deviation from the rules. This study finds that such punishment-centered expressions of change willingness are not associated with power but powerlessness and therefore are not true examples of change willingness.

Policy development exclusion and faculty change resistance. Change resistance in Tummers' strategic powerlessness sub-dimension was indicated at the Connecticut institution when faculty demonstrated resistance to full participation within a workgroup, stating that it was "hard to get down to business" because of the anger they felt at not being asked for input when the legislation was being developed. Although the faculty had been made aware of the legislation at some point, as Diane said, "it was too far past" when they learned of it. Because they were not made aware of the legislation early in its development nor allowed to give input, it's likely that the faculty did not "identify themselves with or participate in the establishment of the rules or view them as their own" (Gouldner, 1954, p. 216). As a result, they were initially resistant to working on implementation solutions because they could not accept that the legislation was developed without their input, and they were "not happy about it." At the strategic level, then, change resistance is related to the exclusion of subject-matter experts (faculty) from the educational policy development process.

The Missouri faculty did not express clear indicators of change resistance in the strategic powerlessness sub-dimension. However, the absence of expressions of change resistance does not necessarily indicate that no resistance exists. Two faculty indicated that they communicated through the MoDEC group during the very early discussions regarding the legislation. Donna stated that through her involvement with MoDEC, she

knew about the legislation approximately six months before it was passed. She did not indicate having given input to the legislation itself but did indicate having given input later in the process during the drafting of the “rule-making” document that resulted from the legislation. Donna stated that the Assistant Commissioner for Academic Affairs brought the initial draft of that document to MoDEC for comments. She added that the draft then went through several iterations, was also vetted through the Chief Academic Officers across the state, and “came back for a final run through all of us to see what comments we wanted to make. Many of us on MoDEC made extensive comments and many of our comments and perspectives found their way into...[the] policy.” It is possible that Donna may have expressed some resistance to the initial rule-making document, and her concerns were addressed by the Missouri Department of Higher Education during the vetting process that she described. If so, her change resistance may have been resolved by the time the interviews were conducted.

Bryn stated that she worked with her institution’s representative on campus “to provide feedback to the proposed bill before it went through legislation” but later indicated that she didn’t hear anything back and didn’t “feel good” about the lack of response. She did not indicate the nature of the feedback that she gave, the content of which may have indicated resistance that may have been addressed through the vetting process. Bryn did indicate that she stayed informed through the MoDEC listserv during the workgroup discussions but was comfortable with constituent representation there. However, if she had expressed objections that were addressed at the policy development stage, that could account for absence of resistance in her interview narratives. It is

likewise possible that Missouri faculty resistance simply did not exist within the strategic and tactical sub-dimensions.

Instructional impact of policy changes and faculty change resistance. Themes that emerged from the first-cycle Missouri data did indicate that the Missouri faculty believed that they were already in compliance with the mandates, and, in fact, out in front of them. They felt that the legislation and MDHE policy document left room for interpretation and that “best practices” and “multiple measures” were not clearly defined. Faculty either saw it as “just another initiative coming down the pike” or didn’t see the mandates as representing significant change. From their perspectives and interpretation of the law, they were already incorporating best practices.

Because the Connecticut legislation had an almost immediate and very significant impact upon the delivery of developmental education in the state, the Connecticut faculty appeared to have been stunned when they realized the extent of the effects that the legislatively-mandated curriculum and teaching methodology changes would have at their own institution, within their own departments and classrooms. Fernandez and Rainey (2006) contend that because humans “are highly adaptable to gradually emerging conditions, a shock or stimulus of significant magnitude is typically required for them to accept change as inevitable” (2006, p. 170). The Connecticut faculty clearly experienced a significant shock, stating that their “jaws dropped” when they first learned of the prescriptive legislation.

The Missouri House Bill 1042 “best practices” legislation, on the other hand, allows for broader interpretation. Therefore, it is possible that the faculty at the Missouri institution believed the legislation itself did not represent change and did not demonstrate

resistance as a result, or they were able to adapt to the conditions that gradually emerged as the MDHE rule-making document for the legislation was developed, with their direct or indirect input. Change resistance, therefore, may be linked to the extent of the policy changes and the significance of their impact upon current practices. Again, it is also possible that the faculty demonstrated change resistance during the early phases of the policy development and that resistance was resolved by the time the interviews were conducted.

Policy workgroup influence and faculty change willingness. Connecticut State Colleges and Universities Board of Regents Faculty Advisory Committee minutes from September 2012 state that “4 task forces, based in four regions, have been formed to begin considering the implementation of PA 12-40” (CSC & U BOR FAC minutes, September 14, 2012, p. 3). Despite some change resistance that arose during early workgroup discussions in Connecticut, faculty at both institutions who participated in statewide workgroups demonstrated overall change willingness, with Connecticut faculty stating that they eventually were not only comfortable with change but saw their participation as an opportunity “do something better,” “charge ahead,” and “take the lead.” Those who did not participate directly were comfortable with the representation they experienced through constituent group involvement.

Missouri faculty who participated in workgroups felt that they exerted significant influence, especially in the threshold discussions, and that MDHE had done a good job with the process and exhibited change willingness. The majority of the faculty at both institutions were not involved with the workgroups but felt comfortable with being uninvolved, as long as they were represented by constituent groups. However, they did

indicate that they wanted the “right” people and constituent associations to represent them. Neither faculty group demonstrated change resistance in Tummers’ tactical powerlessness sub-dimension.

Bastedo (2007) emphasized the importance of including instructional leadership constituent groups during the legislation implementation process, especially the faculty themselves, who are the front-line implementers in the classroom. Fowler (2004) suggests that leaders who are planning an educational policy implementation include teachers in the planning process, stating that “More than any other participants, they will understand both the opportunities and potential difficulties the policy change brings with it” (p. 282). She adds that a “representative sample” (p. 282) of the teachers may be included in the planning process (Fowler, 2004). Implementation and rule-making processes in both states utilized faculty as subject matter expert resources and involved them in decision-making, research and development. Faculty in Missouri who did not participate themselves did want representation from departmental colleagues, as well as broad constituent organization representation from a variety of developmental education and discipline-specific organizations. Connecticut faculty were satisfied with the representation from their departmental colleagues, most of whom appeared to be involved in discipline-specific and developmental education organizations.

This involvement of faculty and acknowledgement of their voices accounts for the faculty buy-in and engagement in the processes. Faculty who were not directly involved at both institutions indicated that they relied upon their constituent groups, whether faculty from their department or constituent organizations, to represent them within the workgroups, indicating a level of trust in indirect representation. Again, Tummers (2011)

notes that individuals who are comfortable with representation from their professional associations may not feel the need to be directly involved in policy development. Therefore, change willingness at the tactical level is associated with faculty inclusion, directly or through peer group representation, in policy implementation planning workgroups established by governing bodies.

Autonomy, trust, and support and faculty change willingness. Faculty at both institutions demonstrated change willingness in Tummers' operational power sub-dimension. When discussing the implementation processes at their institutions, the Connecticut faculty demonstrated clear engagement and enthusiasm as they noted that they were ahead of many community colleges in the state in terms of developing and implementing pilot programs in response to the legislation. They expounded upon the "good work" that they and their colleagues had been engaged in and voluntarily shared detailed information on their new strategies and curriculum. This enthusiasm contrasted strongly with the muted demeanor of the participants during the early part of the interviews when the focus was upon the legislation and their level of participation and awareness.

Connecticut faculty were highly engaged in the change process at their institution and expressed pride in their departments, their colleagues' work, and their own research and curriculum development. They felt that the response at their institution to the mandates was a team effort. Some faculty shared that they had already begun to research co-requisite initiatives and felt they were out-in-front of the legislation in that regard. Faculty enjoyed the research and development processes, indicating that they experienced the opportunity to be creative, make decisions, and employ innovation—knowing that

they were supported while doing so. The Connecticut faculty repeatedly noted that they felt trusted and supported by their institution and its administration, even to the level of the president. They stated that their immediate supervisors and the administration trusted them to do their jobs and appreciated their work during the change process. Indicating that the faculty experienced a high level of autonomy, one participant said that they were “really free to just run with our ideas, which feels really good—to know that you are trusted.” Kouzes and Posner (2007) found that trust is vital to organizational change and innovation, noting that top-performing organizations “trust empowered individuals to turn strategic aims into reality” (p. 225) and adding that “The more trusted people feel, the better they innovate” (p. 225).

This high level of trust and autonomy, the latter of which Tummers notes as the “defining characteristic of professional work,” (2013, p. 142) allowed the faculty to experience operational power at their institution, making them feel that they and their contributions were valued. This perceived level of trust, autonomy, and valuing can also account for the forward movement at the Connecticut institution in implementation of the policy at their school. The faculty noted that they were ahead of many community colleges in the state in terms of developing and implementing pilot programs in response to the legislation. Despite their reports that the process was nothing less than “grueling” and “exhausting” in terms of the amount of time and effort they expended, they not only persisted in developing innovations at their institution, but expressed clear excitement and pride in their work and the work of their colleagues. Fowler (2004) notes that it is not unusual for frontline implementers to feel “overloaded, tired, anxious, and confused” (p. 287) during the early phases of an implementation. However, during the late stage of a

successful implementation, the implementers will begin to “feel in control and proud of their accomplishments” (Fowler, 2004, p. 288).

The Missouri faculty expressed change willingness in Tummers’ operational power dimension, as well, particularly in the areas of pro-active change, research and creativity, team-work, and institutional support. Missouri faculty felt that they were “ahead of the curve” in response to the legislation and had been working on best practices for several years. They, too, mentioned the value of having the support of administration and of team work—working with a “like-minded” group of people who had done their research—when the necessity for making expeditious changes arose. The Missouri faculty exhibited a “matter-of-fact” demeanor when discussing the implementation at their institution, as they displayed confidence that they were already in compliance with the legislation before it was passed. Although they outlined some changes that had occurred in response to the legislation (e.g., the “splitting” of the math department into developmental/non-developmental), it was difficult in some instances to ascertain whether those changes were actually initiated in direct response to the legislation or as departmental planning strategies that met the best practices definition but were implemented as part of a broader departmental/institutional initiative. In either case, the initiatives appear to have addressed the parameters of the mandates. In conclusion, change willingness at the institutional operations level is associated with autonomy, trust and support granted to front-line faculty implementers by institutional leadership.

Instructional planning exclusion and adjunct faculty change resistance. Change resistance appeared in Tummers’ Operational Power sub-dimension with adjunct faculty, only, and at the Connecticut institution, only. Although an adjunct faculty member was

interviewed at the Missouri institution, she did not express change willingness or resistance to the legislation, likely because she was completely uninformed regarding it. Adjunct faculty were not interviewed at the Connecticut institution; therefore, any conclusions of adjunct change resistance there are purely anecdotal. However, faculty narratives indicate that some adjunct faculty did not want to “deal with the changes” and chose not to teach the classes, rather than adjust to the curricular updates.

Fowler (2004) emphasizes the importance of bringing “grassroots implementers” (p. 282) into the educational policy implementation planning process, as “their input is essential” (p. 282). She notes that teachers are one of those primary stakeholder groups. Her discussion focuses upon the P-12 setting. She does not mention substitute teachers, likely because they are, in a sense, transient workers who fill short-term assignments. At the community college, however, adjunct faculty represent a significant percentage of the faculty at large. They are typically hired for semester-long assignments and are responsible for the same curriculum delivery and achievement of student outcomes as the full-time faculty. As such, they may expect to be included in planning processes when significant instructional change is in the offing.

While the faculty concur that adjuncts at the Connecticut institution were well-informed, the adjuncts themselves appear to have had little input during the decision-making processes. The adjunct faculty member who was interviewed at the Missouri institution was neither informed nor involved. Though she did repeatedly mention that “it would have been nice” to have been informed and included, she did not express clear resistance. Similarly, one full-time faculty member at the Connecticut institution who

was still serving as an adjunct during the very early phases of the implementation stated that she was not involved but would have liked to have been involved at that time.

Rifkin (2000) notes the growing community college practice of employing adjunct faculty. While the percentages of adjunct faculty employed at community colleges is increasing, it is also not uncommon for community colleges to hire adjunct faculty for full-time positions. In fact, 12 of the 15 full-time faculty participants in this study had previously served in an adjunct capacity at a higher education institution, typically at a community college. Some had been employed as adjunct faculty at their current institution. Rifkin (2000) found that “full-time faculty are more involved in the academic and disciplinary concerns and responsibilities of the educational community than are part-time faculty” (Rifkin, 2000, Professionalism section, para. 4). Because 7 of the 8 Connecticut faculty had previously served as adjunct faculty, their perspectives regarding the part-time instructors could be influenced by their own experiences as adjunct faculty, during which they were not involved in “the academic and disciplinary concerns” of the institution.

Full-time faculty at both institutions appreciated being given autonomy and freedom in decision-making processes at the institutional level. One faculty member at the Connecticut institution said she tried to bring some of the adjuncts into the early discussions. However, on the whole, the full-time faculty and/or their supervisors at both institutions failed to involve adjunct faculty in their departments in the decision-making processes. This lack of involvement and concomitant operational powerlessness could account for the change resistance expressed by the adjunct faculty at the Connecticut institution. Tummers (2013) found that operational powerlessness has “an average-to-

strong influence on resistance to implementing policies” (p. 142), supporting Fowler’s (2004) contention that front-line implementers should be brought into planning processes. Lack of influence and involvement may explain why some adjunct faculty at the Connecticut institution refused to adopt the changes and chose, instead, to forgo future assignments. Adjunct faculty change resistance is therefore associated with their exclusion by full-time faculty and/or instructional leaders from policy-related instructional and curricular change planning at the institutional level.

Funding support and faculty change willingness. Faculty at both institutions demonstrated change willingness in Tummers’ societal meaning sub-dimension. Faculty at the Connecticut institution saw the mandated changes and correlating adjunct resistance as a means of doing “some weeding” that they felt needed to occur, enabling them to bring in new adjunct faculty or “fresh blood,” which also helped improve instructional quality and consistency. Further, they were also very willing to adopt changes that brought increased funding for developmental education initiatives. Funding was the clearest indicator of change willingness in the societal meaning sub-dimension at the Connecticut institution. Fowler (2004) states that one of the most effective uses of financial resources is not to provide stipends pay increases but to provide support for the front-line implementers. At the Connecticut institution, faculty change willingness was directly associated with the extra state and grant funding made available for carrying out the new initiatives during the implementation process.

The Missouri faculty demonstrated change willingness in the societal meaning sub-dimension in response to the legislation, but only in regards to the threshold, for which they demonstrated consensus support. However, since some faculty indicated that

their institution already has a “very basic” threshold in place, it is unclear whether their willingness to support that initiative is directly tied to the mandates. Their institution has made developmental education changes, but, as one faculty member stated, “[The legislation] wasn’t our motivation to change. We were doing it anyway.”

Policy efficacy and faculty change resistance. The Connecticut faculty exhibited change resistance only when they perceived that implementation of the policies might not be feasible “on the ground level,” due to the rushed nature of the implementation. Gouldner (1954) found that for bureaucratic rules to be effectively implemented, they must be judged “capable of achieving the desired results” (p. 234), by the implementers. In a discussion of performance management systems for policy implementation, Tummers (2012) noted that some “undesirable effects” can occur “when output criteria become more important than societal outcomes” (p. 69). In some cases, the faculty in this study felt that output criteria, such as financial and expediency considerations, were being given more consideration in the policy implementation discussions than benefits to their students. Tummers (2013) found a stronger connection exists between societal/client meaninglessness and change resistance than exists between strategic/tactical powerlessness and change resistance. Tummers (2013) contends that this is because professionals are invested in engaging in and implementing meaningful initiatives and need to understand the logical foundation for those initiatives. Because certain Connecticut faculty felt that the policy implementation was too rushed, they would have been unable review and research the initiatives before implementing them, resulting in their expression of resistance because they could not, with certainty, attach value to them. Fowler (2004) found that in order for a policy to be deemed appropriate, adequate

resources for carrying it out should be identified. These resources are not limited to funds but also to space, personnel, and time. When front-line faculty implementers perceive that adequate resources have not been established prior to the implementation, they are likely to resist the changes.

Institutional culture and faculty change resistance. The Missouri faculty demonstrated no resistance to change in the Societal Meaning sub-dimension. This phenomenon can be explained by the faculty members' assumption that they were already in compliance with the policies and had been implementing best practices for years; therefore, they did not view the legislative policies as representing significant change. For instance, they may have readily accepted the threshold initiative—one of the most controversial initiatives arising from the workgroup rule-making process—because they had already instituted a basic version of a threshold at their institution and it was an accepted part of their culture. Keup, Walker, Astin, and Lindholm (2001) note that “faculty are the gatekeepers of culture and tradition on the campus. When long-held cultural beliefs are challenged by change efforts, faculty naturally perceive the change initiative as threatening...[and] resistance will be the usual response to any transformation effort” (p. 4). This study found that change resistance is inversely associated with policy challenges to existing institutional culture. Because the institution of a threshold does not challenge the cultural beliefs of the faculty at the Missouri institution, they did not resist it, as other faculty might whose institutions have not had any type of threshold in place.

Community college student benefit and faculty change willingness. Faculty at both institutions demonstrated change willingness and change resistance in Tummers' Client Meaning sub-dimension. In Connecticut, faculty demonstrated a propensity to

change when discussing the additional student academic support brought about by the increased developmental education funding resulting from the legislation. The Missouri faculty exhibited change willingness, again, in regards to the threshold, but this time as it applied to student benefit. They felt that students who lack the ability to benefit from college coursework, even at the developmental level, can be more successful with a threshold in place because they can be guided to more appropriate education and training—whereas, without a threshold, those students are being “set-up” for failure.

Again, it should be noted that Tummers (2013) found a stronger connection between the meaning of a policy to a public professional and his or her willingness to change than to that individual’s ability to provide input regarding a policy. When the faculty determined that some of the policy provisions were beneficial to their students, they attached value to the policy, even if the benefits, such as funding for student support initiatives, were derived indirectly as a result of the policy implementation, rather than as part of the policy itself.

Tummers (2010) cites Brewer and Selden (1998) who note that Public Service Motivation (PSM) is associated in part with compassion (as cited in Tummers, 2010). Tummers (2010), in turn, relates compassion to client meaninglessness (in this study, client meaning). When faculty at both institutions discussed benefits to their students, they referenced the unique characteristics of their student population at their individual institutions. Faculty at both institutions described students who require remediation as those who often experience hardships, not only in terms of the low level academic skills that they possess, but also in terms of poverty, lack of family support, and other types of social disenfranchisement. The faculty identified these and other non-cognitive issues,

such as poor study skills, as barriers to their students' academic success. Their expressions of empathy for these students extended beyond a superficial understanding of the students' situations and well into an arena of compassion and a strong desire to provide whatever support is necessary to assist their students in overcoming these barriers, thereby providing the impetus for change willingness. Consequently, community college faculty implementer change willingness is directly associated with their compassion for their particular student population and the benefits the changes provide thereto.

Community college student success barriers and faculty change resistance. The Connecticut faculty demonstrated change resistance when discussing the regional developmental education centers, an idea that was proposed during workgroup meetings but later abandoned due to the unfeasibility of the project. Connecticut Board of Regents minutes note that PA 12-40 language indicated that the Faculty Advisory Committee would be consulted in developing "options for an intensive college readiness program" (CSC & U BOR FAC minutes, September 14, 2012, p. 3). The minutes further note that "The Faculty Advisory Committee was not informed of the regional task forces, nor of the proposed regional remedial support centers" (CSC & U BOR FAC minutes, September 14, 2012, p. 3). However, when discussing the regional centers proposal, the faculty did not demonstrate resistance because they were initially uninformed about the regional centers, but exhibited resistance in the client meaning sub-dimension because they felt that the centers would not have served their student population well. They stated that the regional centers that had been proposed would have made their students feel disconnected from the college community, created transportation difficulties for the

students, and significantly diminished instructional effectiveness/student learning. As a result, the faculty stated that they “were really against” the idea and said that they gave “pushback” to the initiative, which was ultimately discarded. Although they exhibited resistance here in the client meaning sub-dimension, they also exerted influence in the tactical power sub-dimension, wherein public professionals are able to exert influence on the way a policy is implemented at their organization (Tummers, 2010). In this study, the collective colleges and universities across the state represented the organization. The faculty across the state banded together, fought the regional centers concept, and won the battle within their larger state organization to protect their students’ interests.

In addition, the Connecticut faculty had concerns that no “safety net” had been established for the lowest-level students who were unable to meet the remediation standards outlined in the legislation. Because their open-access community college culture had provided instruction for the lowest level students, the faculty were resistant to the changes that limited access, particularly since, from their perspective, no viable alternatives had been discussed for those lowest level students. From the faculty perspective, these students would be left with no educational options since Adult Basic Education (ABE) classes, one alternative that the faculty said had been suggested, would not appropriately serve the needs of those students. Their compassion for these lower-level students exhibited itself in change resistance in the client meaninglessness sub-dimension.

Missouri English faculty demonstrated change resistance when discussing the areas of the *Best Practices* document that they felt would negatively affect their writing students, saying they “felt protective” of their methodology and that any bill that

“mandates uniformity and standardization” is not fair because of each school’s unique issues and student demographic, adding, “It’s this idea that standardization is fair that is a bad idea. Standardization is not necessarily fair.” Fairness from a social justice perspective could be associated with compassion, and faculty compassion for their students within their demographic could be associated with their change resistance.

The faculty at the Missouri institution, as a whole, embraced the threshold initiative as a best practice. Though, contrary to the community college mission, the threshold may prevent the lowest level students from enrolling in remedial coursework, the faculty felt that it is the most ethical approach. They concurred that it is unethical to expend the lowest level students’ time and money by allowing them to enroll (sometimes repeatedly) in coursework in which they can never succeed. They also felt that providing alternative pathways for those students is a more morally ethical and, thus, compassionate approach. This view differs from that of the Connecticut faculty, who not only valued open access but questioned whether any alternate “safety net” routes would be made available to the lowest level students. At both institutions, the faculty were primarily concerned about the best interests of the students, regardless of their open access philosophies. Subsequently, change resistance increased when the community college faculty associated the policy changes with increased barriers to success for their particular student population.

Change resistance disparities between cases. As previously noted, Connecticut faculty exhibited change resistance in four of Tummers’ five sub-dimensions— strategic powerlessness, operational powerlessness, societal meaninglessness, and client meaninglessness. However, Missouri faculty exhibited change resistance in the client

meaninglessness sub-dimension, only. In the strategic powerlessness sub-dimension, Connecticut faculty were highly engaged and energized due to the very prescriptive nature of that legislation and the fact that the first iteration of that legislation—which was later “softened” (Diane)—virtually eliminated developmental education in the state, according to faculty narratives. The legislation itself delineated the coursework models that institutions would be able to offer. Being accustomed to making those types of decisions themselves, the faculty were stunned that, as the subject matter experts and front-line implementers, they were not involved in the legislative decision-making process. In fact, it took them some time to process that these mandates changes were actually happening.

Missouri legislation was less specific and left much more room for interpretation. Faculty concerns centered upon multiple measures and placement instruments, rather than pedagogy (directly) or access. Thresholds are included in MDHE *Principles of Best Practices in Remediation* policy document but had not been implemented across Missouri at the time of this study. However, faculty at the Missouri case institution indicated that a very basic version of a threshold was already in use at their school. Again, because a type of threshold was part of their institutional culture, faculty readily accepted the state-mandated threshold that may have created controversy at other institutions in Missouri.

Connecticut faculty were given opportunities to participate in statewide decision-making at the tactical level; however, at this point, the rule-making process was completed, for the most part, through the legislation, and the workgroup discussions centered upon implementation processes. In Missouri, the legislation itself was relatively vague by comparison, and faculty and their constituent groups participated in the rule-

making process as the Missouri Department of Higher Education Task Force on College and Career Readiness, in coordination with the Assistant Commissioner of Academic Affairs and the Missouri Developmental Education Consortium (MoDEC), developed the *Principles of Best Practices in Remediation* rule-making document for identifying and implementing initiatives in response to the legislation. As such, Missouri faculty were able to participate, either directly or indirectly (through their constituent groups) in the rule-making process, whereas Connecticut faculty participated only in the implementation processes for rules that had been established.

Tummers (2013) explains the significance of these differences, in terms of the meaningfulness of the workgroup participation to public professionals:

Being offered participation if you feel that the policy rules and regulations are already set in stone does not offer much. If participation is to be practiced, it should be a *means* to enhance the meaningfulness of a policy, not a goal in itself. For example, policy makers and managers could arrange work sessions with professionals or professional associations to discuss a new policy before it is fully defined, enabling it to be adapted based on the outcomes of these discussions. In this way, participation can help to draft a better policy, which will enhance its meaningfulness (p. 147).

In Missouri, faculty were allowed to discuss the policy through the rule-making document development process and, therefore, found the policies more meaningful. As a result, they demonstrated less resistance to the policies themselves than did the Connecticut faculty, whose workgroups were charged with carrying out implementation

of policies that were relatively “set in stone” (Tummers, 2013, p. 147) by the time the faculty were brought into the discussions.

Operational powerlessness was demonstrated only at the Connecticut institution and then only by adjunct faculty. Evidence to support adjunct faculty resistance at the Connecticut institution is anecdotal, collected from the faculty narratives and their descriptions of the adjunct faculty reactions to the changes. It is possible that the adjunct faculty resistance was not related to their lack of influence during the process but to other factors. The adjunct faculty member at the Missouri institution who was interviewed knew so little about the legislation and the *Best Practices in Remediation* policy document that she was unable to fully understand the context of many of the interview questions; this may explain why she demonstrated no clear resistance.

The Connecticut faculty demonstrated change resistance in the societal meaningfulness sub-dimension because they felt that the entire implementation process was “rushed” and, therefore, questioned the feasibility of it. From their perspective, there had not been time to fully assess the appropriateness of the initiatives in terms of societal outcomes. The Missouri faculty considered their departments and institution to be out-in-front of the legislation in their state and saw the threshold as a positive societal outcome. Again, relative to the Connecticut legislation, the Missouri legislation, and even the MDHE rule-making *Principles of Best Practices in Remediation* document, is not particularly prescriptive.

Comparisons to Tummers. Professional associations can have substantial influence upon policies, as they assume an important negotiating or representative role in interactions with regulatory bodies, such as the state (Greenwood, Suddaby, & Hinings,

2002; Tummers, 2011). Tummers (2011) notes, however, that the extent of their influence is limited by the perceived power of the association by the policy developers—in the case of Missouri and Connecticut, the state legislatures. As a result, professional associations, when perceived as strong, may be able to significantly increase the indirect power of the constituent group that they represent, in this study, the faculty at community colleges in each state. In Missouri, the faculty were represented by the Missouri Developmental Education Consortium (MoDEC). This influence may account for a less prescriptive policy that was ultimately issued by the Missouri Department of Higher Education.

Tummers (2011) further suggests that the perceived status of a profession can also affect the extent to which a public professional experiences policy alienation and resultant willingness or resistance to change. Tummers uses school teachers and social workers as examples of low-status professions that may experience less discretion in policy implementation. Tummers correlates high-status professions with “autonomy and influence” (2011, p. 10). The college professorship, even at the community college level, is generally considered a high-status profession. In addition, unlike P-12 teachers in the United States, college faculty are accustomed to exerting influence and to experiencing significant autonomy, particularly in curricular matters (Birnbaum, 1988). Birnbaum states that faculty became “more professionalized” during the early twentieth century and have since “tend[ed] to think of themselves as the university” to the point, even, of usurping some of the power previously held by boards of trustees (1988, p. 5). This perception of professional influence over curricular matters and expectation of autonomy

is not limited to university professors but extends to community college faculty, as well (Rifkin, 2000).

Tummers (2011) does make a significant distinction between discretion and operational powerlessness, stating that if plotted, they would be at opposite ends of a continuum. The professional status (influence and autonomy) that faculty are accustomed to experiencing as operational power at their institution, then, may not transfer directly to strategic power at the state level, where professional status “is accorded the competence to define problems, determine solutions and monitor the functioning of the system” (Bucher and Stelling, 1969, as cited by Tummers, 2011, p. 10). Legislative bodies, through higher education committees or subcommittees, may expect to exercise the strategic power needed to identify educational issues, discover solutions and assess the implementation of the solutions. This legislator expectation of discretion can create a disconnect with faculty, who are accustomed to such discretion within their own profession, as the subject-matter experts. Diane, a Connecticut participant, experienced this disconnect, realizing the significance of such committees after learning about the developmental education bill that was about to be voted on in her state:

[The bill] came out of the Higher Education Committee, so had anyone been reading the minutes of [that committee], we would have learned what I learned only right at the very end....And again, had we been reading the minutes of just that higher ed subcommittee, we would have been more fully involved....I’m in a profession, and I’m not keeping track of the law. I didn’t even know there was a Higher Education Committee. So I don’t

really feel like that was their fault. I feel like that was *my* fault, as a consumer.

Tummers notes that “everyday professionals are different and disconnected from professional elites, who represent them in their associations” (2011, p. 11). Because of this disconnect, information regarding the legislation may not have reached faculty in a timely fashion.

However, Connecticut State Colleges and Universities Board of Regents Faculty Advisory Committee minutes from April 2012 indicate that the Board of Regents (BOR) had little notice about the bill, as well. When faculty at the Faculty Advisory Committee meeting asked about the BOR’s position on the legislation, a BOR representative responded that “the bill surfaced publicly without prior notice, and so there was no time to engage the BOR in its complexities and develop a cohesive position” (CSC & U BOR FAC minutes, April 13, 2012, p. 1). In this instance, the higher level representation associations likewise may not have been well-informed in the early stages and, therefore, would not have disseminated the information outward.

Study relationship to policy implementation frameworks. Tummers (2010) policy alienation framework formed the framework for this study. In his 2010 study, Tummers examined public professionals’ willingness to change in regards to new policies. However, his study participants were mental healthcare professionals. Fowler (2004) gives a comprehensive overview of the policy implementation process from an educational perspective; however, her discussion centers upon P-12 schools, often referencing leaders as “principals.” This study is unique in that it examines change willingness from the perspective of community college faculty who teach developmental

education and examines their willingness to change in the context of higher education policies that address developmental education practices. All of the aforementioned professional groups can be considered public professionals. Birnbaum (1988) notes that higher education has its own, distinctive culture, and community colleges are represented within that culture.

The particularistic higher education culture presents its own challenges in implementation of change. One factor that sets community college faculty apart from mental health professionals is the concept of shared governance, which carries with it faculty expectations of autonomy and participation, particularly in issues surrounding curriculum, instruction and assessment. These expectations may account for some of the differences in findings between this study and Tummers' (2010) study. The educational environment described in Fowler's (2004) text may likewise explain some of the similarities between the findings contained herein and her explanations of the implementation process and suggestions for coping with opposition to it. Although higher education culture does differ somewhat from P-12 culture, some aspects of the educational environment are universal.

Several findings in this study provide additional insights to Tummers (2010) study and Fowler's (2004) reference work. First, Tummers (2010) found that public professionals' change willingness was driven more by values (societal meaning, client meaning) than influence (strategic power, tactical power). While the findings for this study agree with Tummers' findings for the operational power, societal meaning, and client meaning sub-dimensions, this study found that the faculty also exhibited change willingness in the tactical power sub-dimension, which Tummers explains as "the

professionals' perceived influence on decisions concerning the way the policy is implemented within their own organisation [sic]" (2010, p. 7). Because community college faculty are accustomed to participative governance, particularly in matters of instruction, they are invested in how the policy will be implemented—in this case, statewide. Fowler (2004) recognizes the importance of participative implementation, stating that "it *must* include representatives of two key stakeholder groups: building principals and teachers. Because they will be the grassroots implementers, their input is essential" (p. 282).

This study also found that the faculty exhibited change willingness in the strategic power sub-dimension, but because that willingness was based upon pressure to comply with mandates and not internal motivation, this researcher found that the faculty willingness was not an expression of strategic power but of powerlessness. Tummers (2010) makes no change willingness differentiation between internally motivated compliance (values or self-interest) and externally motivated compliance (fear of consequences related to non-compliance). In a later study, Tummers (2013) suggested that "highly rule-compliant public professionals are less resistant to implementing new governmental policies, irrespective of their content" (p. 108). However, Fowler's (2004) study warns of potential consequences when individuals (in her study, educational professionals) exhibit token compliance, as they can sabotage an implementation through what Bastedo calls "ostensibly nonoptimal" behaviors (2007, p. 303). Although the faculty in this study complied with the mandates, they suggested that their compliance was based upon fear of punitive measures, which Gouldner (1954) notes as an undesirable basis for eliciting cooperation.

Conclusions, Implications and Recommendations

Analysis of the findings produced the following conclusions, implications and recommendations.

Conclusion #1. Faculty demonstrate change resistance when they are not brought into the discussions during the policy development stage.

Implications. Because college faculty are accustomed to exercising a high level of autonomy and freedom of expression and are highly-regarded professionals, subject-matter experts, and front-line implementers, they expect to be allowed to participate in policy discussions related to instruction and assessment. Faculty are generally comfortable with being represented by their constituent groups, particularly their discipline-specific constituent groups.

In the Missouri model, the legislation itself left room for interpretation. That interpretation took place during the development of the rule-making policy document. Faculty were allowed to provide input and influence during the rule-making process by participating directly or indirectly (through constituent representation) in policy document development. In the Connecticut model, the legislation itself was prescriptive, and faculty were allowed input during the implementation of the rules, only. As a result, Connecticut faculty exhibited change resistance to the legislation and Missouri faculty did not. This has implications for lawmakers, state higher education governing boards, and instructional administration, as well as faculty. As Tummers (2013) noted, being allowed input during the rule-making process makes the rules more meaningful to the participants. Tummers further found that it is the meaningfulness of the policies themselves, not the influence that public professionals exert during the policy-making

process, that affects their willingness to change. However, since according to Tummers (2013) being allowed input increases perceived meaningfulness of a policy, leaders—from legislators to academic administrators—should consider that involving faculty in true decision-making at the policy development level can increase buy-in and engagement with the policies, effecting transformational change. Connecticut faculty member Lauren summed this up, saying, “I think that...had there been more collaboration from the beginning, it might have sparked effective change more globally.”

Recommendations. State legislatures should consider providing a clear venue for faculty input during development of legislation that affects instruction and/or assessment. Because of the logistical difficulties associated with involving all faculty, involvement of higher education constituent groups, particularly discipline-specific groups, could be considered. Alternatively, legislation could be developed that is somewhat broad in nature, and faculty could be given input to the rule-making process during the development of a policy document to interpret and implement the laws. Broad language in the legislation would also allow for policies to be revisited by governing boards and revised with input from faculty professionals as new best practices and research emerge. Workgroups should provide an avenue for faculty participation in policy decision-making, not just allowing participation in implementation decisions for policies and rules that are already “set in stone.”

Conclusion #2. Faculty are more likely to fully engage in instructional change initiatives at the institutional level, even if the changes are externally mandated, if they experience a climate of trust and support at their institution.

Implications. Faculty at both institutions were engaged in changes at their institutions and said they felt supported by their administration. Despite heavy workloads during the implementation process and being asked to implement policies that they had had virtually no opportunity to influence, the Connecticut faculty were highly motivated and reported enjoying the scholarly and creative processes they engaged in during the policy implementation at their institution. They indicated that they experienced support from across the institution and a high level of trust from their administration. The faculty translated this trust and support as autonomy—the freedom to “run with their ideas.” They not only felt respected as professionals but noted that they experienced administration support when it was most needed.

This conclusion has implications for instructional administrators, as well as other instructional stakeholders across campus that can provide support for faculty involved in developing innovative instructional initiatives. Kouzes and Posner (2007) advise current or prospective leaders that “Without trust, you cannot get extraordinary things done” (p. 224). The massive overhaul of the developmental education curriculum and assessments that took place at the Connecticut institution in response to the legislation certainly qualifies as “extraordinary.” Keup, Walker, Astin, and Lindholm (2001) indicate that “trust is enhanced” (p. 3) when decision-making takes institutional culture into account. The administrators at both institutions provide models of acknowledging faculty autonomy and creating an atmosphere of trust to accomplish instructional change goals.

Recommendations. Administration should strive to create an atmosphere of trust, supporting faculty and allowing them autonomy to make course development and program decisions during the change process.

Conclusion #3. When adjunct faculty are not included in change discussions and allowed to give input, even at the institutional, operational level, they may experience the same resistance to change that full-time faculty experience if they are not included at the strategic level.

Implications. Adjunct faculty, like full-time faculty, view themselves as the front-line implementers who are “in the trenches every day.” Again like full-time faculty, they see themselves as subject-matter experts and, as such, would like to have some input in instructional decisions. When they are given information but no input, they may resist change. To adjunct faculty, the operational level may appear like the strategic level does to full-time faculty, where rules are often made without their input. This conclusion has implications for full-time and adjunct faculty, but, more importantly, for instructional administrators, primarily at the dean or department chair level. Again, citing Tummers, when rules are meaningful to a public professional, he or she is more likely to be open to change (2010), and meaningfulness can be achieved by allowing the professional input in the rule-making process (Tummers, 2013).

While adjunct faculty don't hold the same rank as full-time faculty, they are still front-line implementers and subject-matter experts. Because they often teach at more than one institution, they may even have knowledge regarding different instructional approaches that a long-time full-time faculty member may not be aware of. As such, they have much to bring to discussions. Further, because adjunct faculty generally teach a large or a larger percentage of the overall curriculum at a community college than the full-time faculty do, having their buy-in can be important to instructional consistency. When adjunct faculty find rules less than meaningful because they are “imposed on the

group by some ‘outside’ agency” (Gouldner, 1954, p. 216) (i.e., the full-time faculty and/or administration), they may comply in order to keep their assignments but may not be fully engaged, which could have a negative impact on instructional consistency.

Recommendations. Communication and engagement should be consistently applied across faculty rank to guarantee buy-in and instructional consistency and reduce change resistance among adjunct faculty. Adjunct faculty should be brought into the change process early, either through departmental participation or as part of a developmental education advisory board, which might also include constituent group representation from student support, advising, or other instruction and assessment stakeholders. In either case, adjuncts should not only receive communication but should be allowed to participate in decision-making processes. As with full-time faculty, it is not necessary to involve all adjunct instructors, but their constituent group should have representation.

Conclusion #4. Faculty are more likely to embrace statewide change initiatives if they believe that they have societal value, including feasibility of implementation.

Implications. The findings of this study are consistent with Tummers’ (2010) findings that “change willingness of implementing professionals is more dependent on the perceived value of the policy for society and their own clients, than on their perceived influence on a strategic or tactical level” (p. 17). Gouldner (1954) found that bureaucratic rules are more likely to be effective if the front-line implementers consider the policies both capable of achieving the desired results and morally appropriate. Although the two case institutions identified *different* benefits to society in the change willingness themes, faculty at both institutions exhibited change willingness when they perceived that the

policies would have positive effects on developmental education outcomes in their state. The Missouri faculty change willingness centered upon the benefits of a threshold. Connecticut faculty change willingness surrounded improved instructional consistency and increased student support, made available through additional funding that resulted from the legislation in their state. Connecticut faculty demonstrated change resistance when they perceived that the implementation of the policies was too rushed and, therefore, not feasible. These conclusions have implications for legislators and governing boards, as well as instructional administrators, other instructional stakeholders (such as academic advising), and faculty. Poor feasibility can result in costs to institutions, states, and society in general, in terms of wasted resources, whether human capital and/or funds.

Recommendations. 1) Faculty should be involved in discussions that challenge the community college mission of open access and allowed to provide input regarding limiting/expanding student access. 2) Faculty should be involved in the early phases of implementation discussions and sufficient time should be available to allow faculty to conduct research on initiatives before the implementation of pilots. 3) Legislative mandates should be accompanied by funding to support instructional innovations and provide student support services, which also provide benefits to faculty in the classroom when students are able to get outside assistance. Again, faculty are more likely to adopt policy changes if they find those changes meaningful (Tummers, 2010).

Conclusion #5. Faculty are more likely to embrace instructional change initiatives if they believe that they will benefit their students. Faculty are more likely to resist change initiatives if they believe that those initiatives will be detrimental to their students.

Implications. Findings in the client meaning sub-dimension are very similar to those in societal sub-dimension. Faculty felt that some of the same initiatives that are beneficial to developmental education outcomes across the state are also beneficial to the individual students in their classes. Connecticut faculty again showed willingness to change when increased funding as a result of the legislation provided additional student support. The Missouri faculty change willingness again centered upon the benefits of a threshold. Conversely, the Connecticut faculty demonstrated change resistance related to limiting access to the lowest level students. In both cases, faculty demonstrated empathy and compassion for the lowest level students, who they perceived to be “caught in the middle.”

Connecticut faculty also demonstrated change resistance to the proposed regional centers because they would be detrimental to the students academically, socially (in terms of their feeling disconnected from the college community, etc.), and physically (in terms of creating barriers to transportation and, therefore, access to services). This may also account for the Connecticut faculty’s resistance to change in the societal value area due to lack of feasibility of initiatives. Missouri faculty demonstrated change resistance in the client meaning area when they perceived that placement instruments and multiple measures initiatives may affect whether or not their students are appropriately placed in coursework.

Client meaning is, in fact, the only area in which faculty at both institutions demonstrated change resistance. This is highly significant and has implications for legislatures, state governing boards, and instructional administrators, as it suggests that faculty may resist an initiative, regardless of its benefits to themselves or to society as a

whole, if they perceive it to be detrimental to their students—whether academically, socially, or in terms of logistical feasibility and access to instructional services.

Tummers (2010) provides insight as to why this may be true. Citing Brewer and Selden (1998), Tummers (2010) explains that compassion is one of the four dimensions that contribute to the concept of Public Service Motivation (PSM) (as cited in Tummers, 2010). Tummers relates compassion to client meaningfulness (2010); in other words, compassion in this study might be correlated to client meaning. In their interview narratives, the faculty (public servants) at both institutions clearly demonstrated compassion for their students, providing many anecdotes about students who struggled and succeeded (and sometimes did not succeed) and the barriers that they faced, whether external or self-imposed.

Recommendations. Policies should be flexible enough to allow faculty to apply the policy “standards” to meet the academic, social, and physical access needs of their particular student populations and the placement and assessment instruments appropriate to their particular discipline.

Limitations

This study has several limitations, including the following.

Methodology. Tummers’ 2010 policy alienation concept provided the framework for this study, which also addressed change resistance. Tummers included change resistance in later studies (2013), but it was not addressed in his 2010 study. Therefore, change resistance findings in this study do not have correlative findings in Tummers’ framework.

One adjunct faculty member was interviewed at the Missouri institution. No adjunct faculty were interviewed at the Connecticut institution. Therefore, adjunct faculty data gathered from that institution were anecdotal, taken from full-time faculty accountings of adjunct faculty behaviors.

One question was omitted during each of two participant interviews at the Connecticut institution and one question during one interview at the Missouri institution through researcher oversight. However, one of the Connecticut participants did cover the context of the omitted question within her interview narratives.

Researcher reflexivity. Merriam (2009) cites Lincoln and Guba (2000), who explain that researcher reflexivity allows the researcher to engage in “the process of reflecting critically on the self as researcher, the ‘human as instrument’” (p. 183, as cited in Merriam, 2009). This researcher has 20 years of experience teaching developmental English coursework at a Missouri community college, in both independent study learning center and classroom environments. I began teaching developmental coursework as a learning center tutor, then as an English adjunct faculty member, and finally, as a full-time, tenured English faculty member.

In August 2007, my last year as a full-time faculty member, the State of Missouri passed Senate Bill 389, which required that Missouri Higher Education institutions publicly post faculty academic credentials, course schedules, class assignments, and instructor ratings by students. These policies were created to provide potential and current students with “consumer information.” During the following year, I was involved in some discussions regarding how to implement the instructor ratings piece of the policy, which was controversial among some faculty. My role changed from faculty to division

chair during the implementation process, allowing me to experience the implementation from both perspectives.

For the past eight years I have served as an instructional administrator. During my four years as Division Chair of Communication & Fine Arts, I supervised faculty and helped administer developmental education coursework in English and reading. In my current role as Dean of Arts and Science Education, developmental mathematics also falls within my purview. I have attended the Missouri Developmental Education Consortium (MoDEC) general assembly meetings in the past, but I have not served as a campus representative to MoDEC, nor was I directly involved in providing input to the MDHE *Best Practices in Remediation* policy document. I did provide indirect input through requests for feedback that were distributed by our institution's Chief Academic Officer. I have since worked with the faculty and division chairs at my institution to implement the standards outlined in that document and have championed best practices developmental education instructional approaches on our campus, including accelerated coursework and co-requisite models.

In addition, in 2014-2015, I served on a statewide task force that was charged with revising the dual credit policies for Missouri. The resulting policies were approved by the Coordinating Board for Higher Education in June 2015. Over the past months, I have been involved in implementing the new policies at our institution and high school partner sites. This collaborative experience has provided me with an understanding of a policy change process from the development level through the institutional implementation level and empathy for all stakeholders along the way.

Throughout my study, I have made a concerted effort to objectively portray the faculty experiences and perceptions as genuinely as possible, by careful analysis and interpretation of the data. In addition, I used member checking to help verify my initial findings and utilized both first and second cycle coding methods. The variety of roles that I have experienced while working at a community college has also helped broaden my perspectives and enabled me to view implementation situations through the lens of adjunct faculty member; full-time, tenured faculty member; division chair; and administrator. As a former first-generation community college student, I can also empathize with the community college student point of view, as I understand first-hand the non-cognitive challenges that these students often face as they work toward degree completion. Each role likely brings with it some bias, but I believe that these roles in combination, along with verification strategies, have helped to minimize that bias and bring a balanced perspective to my study.

Recommendations for Future Research

A review of the findings and implications of this study presented several possible avenues for future research, as follows.

Because academic organizations and culture differ from other organizations, even other not-for-profit organizations, future research might attempt to more closely replicate Tummers' research, using as a framework one of his later studies that do address change resistance. Such research might apply a quantitative approach and larger sample size, similar to that in Tummers' 2010 study, applying that methodology to the higher education professorship as a type of public professional.

An additional recommendation for future research would be to apply Tummers' change willingness concepts in a study of community college and/or four-year college

adjunct faculty to determine how their willingness to change affects how they comply with differing instructional approaches when teaching the same coursework at two or more institutions.

Future researchers might also examine how the experiences of full-time faculty who have previously served as adjunct faculty affect their attitudes toward inclusion of part-time instructors in curricular and instructional decision-making.

Further, faculty responses to questions regarding the effect of the mandates on developmental education outcomes were often phrased in uncertainty, with some faculty noting that time is needed to allow the new initiatives to take full effect and then to measure the outcomes. To address the question of outcomes, a longitudinal study could be conducted in both states to measure the effectiveness of the mandated developmental education initiatives over time.

Finally, a study could be conducted to determine the best approach to serving the needs of students who need the lowest level of remediation. This study might include investigation of the feasibility of statewide thresholds for student placement into college coursework, including remedial coursework. The study might also examine the relevancy of the widely-held view of the community college mission in terms of open access. Similarly, it might help establish a clear definition of student success, including whether or not that definition should hinge upon the student's achievement of a credential.

Conclusion

Ultimately, the faculty embraced the legislative changes imposed by their states, primarily because, in the final analysis, they believed that the changes brought benefits to developmental education in their respective states and to students in their classrooms.

However, much angst could have been avoided and perhaps even more transformative, global change effected if faculty had been allowed to provide input—as the subject-matter experts and professionals in their fields—from the inception of the legislation. As Alan, a Connecticut faculty member, said, “So, overall, it’s good. It’s the way it got there.” Hopefully, future developmental and other state-legislated instructional change initiatives will invite the faculty professionals in at the outset of the change journey, rather than waiting until the course has been determined.

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Appendix A.

Connecticut and Missouri Legislation, Side-by-Side Comparisons

<i>Connecticut—Substitute Senate Bill No. 40, Public Act No. 12-40 (PA 12-40)</i>	<i>Missouri—House Bill No. 1042, 96th General Assembly, 2012, An Act</i>
<p>“Not later than the start of the fall semester of 2014 and for each semester thereafter, if a public institution of higher education determines, by use of multiple commonly accepted measures of skill level, that a student is likely to succeed in college level work with supplemental support, the public institution of higher education shall offer such student remedial support that is embedded with the corresponding entry level course in a college level program. Such embedded support shall be offered during the same semester as and in conjunction with the entry level course for purposes of providing the student with supplemental support in the entry level course” (Connecticut State Senate, 2012, Section 1. (b)).</p> <p>“Not later than the start of the fall semester of 2014 and for each semester thereafter, if a public institution of higher education determines, by use of multiple commonly accepted measures of skill level, that a student is below the skill level required for success in college level work, the public institution of higher education shall offer such student the opportunity to participate in an intensive college readiness program before the start of the next semester. Such student shall complete such intensive college readiness program prior to receiving embedded remedial support, as provided in subsection (b) of this section. The Board of Regents for Higher Education, in consultation with Connecticut’s P-20 Council and the faculty advisory committee to the Board of Regents for Higher Education, shall develop options for an intensive college readiness program” (Connecticut State Senate, 2012, Section 1. (c)).</p> <p>“Not later than the start of the fall semester of 2014 and for each semester thereafter, no public institution of higher education shall offer any remedial support, including remedial courses, that is not embedded with the corresponding entry level course, as required pursuant to subsection (b) of this section, or offered as part of an intensive college readiness program, except such institution may offer a student a maximum of one semester of remedial support that is not embedded, provided (1) such support is intended to advance such student toward earning a degree, and (2) the program of remedial support is approved by the Board of Regents for Higher Education” (Connecticut State Senate, 2012, Section 1. (d)).</p>	<p>“The coordinating board for higher education shall require all public two-year and four-year higher education institutions to replicate best practices in remediation identified by the coordinating board and institutions from research undertaken by regional educational laboratories, higher education research organizations, and similar organizations with expertise in the subject, and identify and reduce methods that have been found to be ineffective in preparing or retaining students or that delay students from enrollment in college-level courses.” (Missouri House of Representatives, 2012, HB1042, 173.005.1.(6), lines 53-59).</p>

Appendix B.

Interview Questions

1. To what degree were you aware of what was happening in state policy related to developmental education prior to the implementation?

(Probes: If you were aware, how did you become aware of what was happening? How do you feel about how you were/were not aware of what was happening?)
2. How were you involved in drafting the developmental education policies resulting from the passage of HB1042/SB40?

(Probes: How do you feel about how you were/were not involved? If you were involved, how do you feel about the manner in which the statewide policy development process was conducted?)
3. How were you involved in drafting the developmental education policy implementation process resulting from the passage of HB1042/SB40?

(Probes: How do you feel about how you were/were not involved? If you were involved, how do you feel about the manner in which the implementation process was drafted?)
4. What was the timeline for the institutional implementation process?
5. Can you describe for me your involvement in the institutional implementation process?
6. How do you feel about your role in the institutional implementation process?
7. Please share with me how the 2012 developmental education legislation changes the delivery of developmental education in your state.

8. How do you think these changes will affect developmental education outcomes in your state?
9. How do you think the policy changes will affect students in your developmental education courses?
10. Are you a full-time or part-time faculty member?
11. How long have you been teaching developmental education students in (Math, Writing/Reading, Writing, or Reading) relative in time to when the policies took effect?
12. Tell me about your prior developmental education teaching experience.
13. Whom else should I speak with?

Appendix C.

Faculty Interview Protocol

Institution: _____

Interviewee (Title and Name): _____

Interviewer: _____

Introductory Protocol

___ *Review of Informed Consent Document*___ *Participant Checked Audiotaping Box*___ *Participant Given Copy of Informed Consent Form*

Introduction

The purpose of this research study is to describe and interpret developmental education faculty perceptions of their level of involvement in developmental education legislation implementation processes in their states, either Connecticut or Missouri. Further, the study will examine how perceived level of involvement may affect faculty willingness to implement instructional change. You have been invited to participate in this study because you are a faculty member who has taught developmental education coursework at your institution prior to the implementation of 2012 developmental education legislation.

Other Topics Discussed: _____

Documents Obtained:

Post Interview Comments or Leads:

Appendix D.

IRB Approval Letter



January 13, 2015

Shirley Davenport
Department of Educational Administration
[REDACTED]

Richard Torracco
Department of Educational Administration
120 TEAC, UNL, 68588-0360

IRB Number: 20150114835EX

Project ID: 14835

Project Title: Implementation of State Developmental Education Policy: A Comparative Case Study of Faculty Perceptions of Involvement

Dear Shirley:

This letter is to officially notify you of the certification of exemption of your project. Your proposal is in compliance with this institution's Federal Wide Assurance 00002258 and the DHHS Regulations for the Protection of Human Subjects (45 CFR 46) and has been classified as exempt, category 2.

You are authorized to implement this study as of the Date of Exemption Determination: 01/13/2015.

We wish to remind you that the principal investigator is responsible for reporting to this Board any of the following events within 48 hours of the event:

- * Any serious event (including on-site and off-site adverse events, injuries, side effects, deaths, or other problems) which in the opinion of the local investigator was unanticipated, involved risk to subjects or others, and was possibly related to the research procedures;
- * Any serious accidental or unintentional change to the IRB-approved protocol that involves risk or has the potential to recur;
- * Any publication in the literature, safety monitoring report, interim result or other finding that indicates an unexpected change to the risk/benefit ratio of the research;
- * Any breach in confidentiality or compromise in data privacy related to the subject or

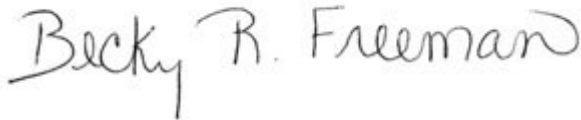
others; or

* Any complaint of a subject that indicates an unanticipated risk or that cannot be resolved by the research staff.

This project should be conducted in full accordance with all applicable sections of the IRB Guidelines and you should notify the IRB immediately of any proposed changes that may affect the exempt status of your research project. You should report any unanticipated problems involving risks to the participants or others to the Board.

If you have any questions, please contact the IRB office at 472-6965.

Sincerely,



Becky R. Freeman, CIP
for the IRB



Appendix E.

Connecticut Informed Consent Form



INFORMED CONSENT FORM

IRB# 20150114835EX

Identification of Project:

Implementation of State Developmental Education Policy: A Multiple Case Study of Faculty Perceptions of Involvement

Purpose of the Research:

The purpose of this research study is to describe and interpret developmental education faculty perceptions of their level of involvement in developmental education legislation implementation processes in their states. Further, the study will examine how perceived level of involvement may affect faculty willingness to implement instructional change. You must be 19 years of age or older to participate. You are invited to participate in this study because you are a faculty member who has taught developmental education coursework in your state.

Procedures:

Participation in this study will require approximately 45-60 minutes of your time. You will be asked to respond to 12 interview questions: 8 questions regarding your perceptions of your level of participation in state-legislated developmental education policies and policy processes and 4 demographic questions. The study will use a reflexive interview model that may include follow-up questions, as needed. The interview will take place in your faculty office and will be digitally audio-taped, with your permission.

Risks and/or Discomforts:

There are no known risks or discomforts associated with this research. In the event of problems resulting from participation in the study, psychological treatment is available on a sliding fee scale at the UNL Psychological Consultation Center, telephone (402) 472-2351.

Benefits:

There are no direct benefits to the participants. Participation in this study may benefit participants indirectly by providing an opportunity for reflection upon their engagement with the curricular and/or pedagogical changes mandated by the legislation, as well as any associated effects upon student outcomes.

Confidentiality:

Any information obtained during this study that could identify you will be kept strictly confidential. The data will be stored in a locked cabinet in the investigator's office and will be seen by the investigator, only, during the study and for one year after the study is complete. The information obtained in this study will be published in a qualitative doctoral dissertation, but pseudonyms will be used to identify participants, and institutions will be identified only as "a Missouri community college" or "a Connecticut community college". The transcriptionist has signed a confidentiality agreement, and the audiotapes will be erased after transcription.

Compensation:

There will be no compensation for participating in this research.

Opportunity to Ask Questions:

You may ask any questions concerning this research and have those questions answered before agreeing to participate in the study or during the study. You may also call the investigator at any time at her office phone, [REDACTED], or after hours, [REDACTED]. If you have questions concerning your rights as a research subject that have not been answered by the investigator or to report any concerns about the study, you may contact the University of Nebraska-Lincoln Institutional Review Board, telephone (402) 472-6965.

Freedom to Withdraw:

You are free to decide not to participate in this study or to withdraw at any time without adversely affecting your relationship with the investigators, the University of Nebraska, or your institution. Your decision will not result in any loss or 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.

_____ Check if you agree to be audio taped during the interview.

Signature of Participant:

Signature of Research Participant

Date

Name and Phone number of investigator(s):

Shirley Davenport, Doctoral Candidate, Principal Investigator
Dr. Richard Torracco, Ph.D., Secondary Investigator

Office: [REDACTED]
Office: [REDACTED]

Appendix F.

Missouri Informed Consent Form



INFORMED CONSENT FORM

IRB# 20150114835EX

Identification of Project:

Implementation of State Developmental Education Policy: A Multiple Case Study of Faculty Perceptions of Involvement

Purpose of the Research:

The purpose of this research study is to describe and interpret developmental education faculty perceptions of their level of involvement in developmental education legislation implementation processes in their states. Further, the study will examine how perceived level of involvement may affect faculty willingness to implement instructional change. You must be 19 years of age or older to participate. You are invited to participate in this study because you are a faculty member who has taught developmental education coursework in your state.

Procedures:

Participation in this study will require approximately 45 minutes of your time. You will be asked to respond to 12 interview questions: 8 questions regarding your perceptions of your level of participation in state-legislated developmental education policies and policy processes and 4 demographic questions. The study will use a reflexive interview model that may include follow-up questions, as needed. The interview will take place in your faculty office or by telephone and will be digitally audio-taped, with your permission.

Risks and/or Discomforts:

There are no known risks or discomforts associated with this research. In the event of problems resulting from participation in the study, psychological treatment is available on a sliding fee scale at the UNL Psychological Consultation Center, telephone (402) 472-2351.

Benefits:

There are no direct benefits to the participants. Participation in this study may benefit participants indirectly by providing an opportunity for reflection upon their engagement with the curricular and/or pedagogical changes mandated by the legislation, as well as any associated effects upon student outcomes.

Confidentiality:

Any information obtained during this study that could identify you will be kept strictly confidential. The data will be stored in a locked cabinet in the investigator's office and will be seen by the investigator, only, during the study and for one year after the study is complete. The information obtained in this study will be published in a qualitative doctoral dissertation, but pseudonyms will be used to identify participants, and institutions will be identified only as "a Missouri community college" or "a Connecticut community college". The transcriptionist has signed a confidentiality agreement, and the audiotapes will be erased after transcription.

Compensation:

There will be no compensation for participating in this research.

Opportunity to Ask Questions:

You may ask any questions concerning this research and have those questions answered before agreeing to participate in the study or during the study. You may also call the investigator at any time at her office phone, [REDACTED], or after hours, [REDACTED]. If you have questions concerning your rights as a research subject that have not been answered by the investigator or to report any concerns about the study, you may contact the University of Nebraska-Lincoln Institutional Review Board, telephone (402) 472-6965.

Freedom to Withdraw:

You are free to decide not to participate in this study or to withdraw at any time without adversely affecting your relationship with the investigators, the University of Nebraska, or your institution. Your decision will not result in any loss or 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.

_____ Check if you agree to be audio taped during the interview.

Signature of Participant:

Signature of Research Participant

Date

Name and Phone number of investigator(s):

Shirley Davenport, Doctoral Candidate, Principal Investigator
Dr. Richard Torracco, Ph.D., Secondary Investigator

Office: [REDACTED]
Office: [REDACTED]

Appendix G.

Transcriptionist Confidentiality Agreement/Conflict of Interest Form



Transcriptionist Confidentiality Statement

I ___(name of transcriptionist) agree to hold all information contained on audio recorded tapes/ and in interviews received from Shirley Davenport (Name of PI), primary investigator for *Implementation of State Developmental Education Policy: A Multiple Case Study of Faculty Perceptions of Involvement*, (Name of the project) in confidence with regard to the individual and institutions involved in the research study. I understand that to violate this agreement would constitute a serious and unethical infringement on the informant's right to privacy.

I also certify that I have completed the CITI Limited Research Worker training in Human Research Protections.

 Signature of Transcriptionist

 Date

 Signature of Principal Investigator

 Date