

ABSTRACT

ROMICH, RANDALL JEFFREY. Faculty Perceptions of Institutional Effectiveness Measures and Practices. (Under the direction of Dr. James Bartlett).

Institutional Effectiveness (IE) has become a foundational part of colleges and university planning since the mid 1980's. Almost every college and university has some plan designed to make their institutions more effective for future students. Given its explosive growth in the past two decades, the research around institutional effectiveness is limited in many aspects, one of which being how the faculty, a primary implementer of IE, views the practices and measures they deliver every day. The goal of this study was to assess the perceptions that community college faculty members, both CTE and Academic/transfer faculty members, hold in regards to the institutional effectiveness practices and measures found at their particular colleges. The study found five different factor groups, which included: Lack of Faculty Influence on IE, Negative Views of Administration Guiding IE Outcomes, Equity and Value Determine IE Outcomes, Internal Stakeholder Driven IE Outcomes, Expectations of IE Outcomes. The overall perception of faculty members' leaned towards more inclusion in the decision making process, as well as a general negative view of administrations role in the creation of IE practices and measures. The results of this study could help future planning, development, and implementation of practices and measures in community colleges.

© Copyright 2018 by Randall J. Romich

All Rights Reserved

Faculty Perceptions of Institutional Effectiveness Measures and Practices

by
Randall Jeffrey Romich

A dissertation submitted to the Graduate Faculty of
North Carolina State University
in partial fulfillment of the
requirements for the degree of
Doctorate of Education

Adult & Community College Education

Raleigh, North Carolina

2018

APPROVED BY:

Dr. James Bartlett
Committee Chair

Dr. Michelle Bartlett

Dr. Travis Park

Dr. Carol Adams Warren

DEDICATION

This study is dedicated to my wife, Lindsay. Thank you for all of the sacrifices you made over the past four years to allow this goal to come to fruition. Thank you for keeping me motivated, and being there the whole way.

BIOGRAPHY

Randall Romich was born in Raleigh, North Carolina and grew up across the state in Shelby, North Carolina. After finishing high school, he attended East Carolina University, where he obtained a B.S. and M.A. in Communications. He also met his wife at East Carolina University. After bouncing around, they settled in Burlington, NC when Randall received a full time teaching position at Guilford Technical Community College located in Jamestown, NC. Randall has been a Communications faculty member since 2011. His interest in adult education is what led him to pursue his Ed.D in Adult and Community College Education through North Carolina State University.

Randall and his wife are currently expecting their first and second child in the Fall of 2018. Randall's interests include spending time with his wife and family and participating in CrossFit.

ACKNOWLEDGMENTS

I would like to thank a number of people that helped me along the way on this journey towards earning my Ed.D. First and foremost, I want to thank my wife for all the sacrifices you've made to allow for this dream to come true. Thank you for listening to all of my random facts and information about institutional effectiveness, as well as providing an ear for frustrations while also sharing in the excitement of the completion of each stage.

I'd also like to thank my parents for not only supporting me through the process, but providing me with constant support and the belief that I can achieve anything I'm willing to work hard for. I also would like to extend a large thank you to my colleagues at GTCC. I appreciate all of your encouragement throughout the process.

Dr. James Bartlett, my Dissertation Chair, has served as a mentor from the first day I joined the Adult and Community College Ed.D cohort. Thank you for your support and guidance over the four year process. My committee members- Dr. Michelle Bartlett, Dr. Carol Warren, and Dr. Travis Park- who have provided me with feedback that helped shape the final product.

I would also like to thank a number of my fellow cohort classmates for their encouragement and support throughout the entire process. Dr. Jessica Kiser, thank you for always being there with answers to my questions, no matter how simple they were. Erica, Chris, and Jennifer, thank you for listening to me complain and gripe, while encouraging me to continue and finish. I appreciate all of your support throughout the entire cohort process. I value all of your friendships and all of the conversations we had along the way. Finally, Dr. Katie Kandalec, thank you for your input and guidance as I approached the finish line. Your friendship

throughout the cohort, and support during the completion of the dissertation have been especially helpful. I am forever grateful for your help along the way.

TABLE OF CONTENTS

LIST OF TABLES	ix
LIST OF FIGURES	x
CHAPTER 1: INTRODUCTION	1
Background	1
Institutional Effectiveness	3
Statement of the Problem	7
Theoretical Framework	9
Conceptual Framework	13
Purpose Statement	15
Research Questions	16
Significance of Study	16
Limitations	18
Delimitations	19
Definition of Institutional Effectiveness and Related Terminology	20
Summary	23
CHAPTER 2: REVIEW OF THE LITERATURE	24
From Organizational Effectiveness to Institutional Effectiveness: The Shift	25
Organizational effectiveness.	26
Institutional Effectiveness	28
Indicators of Institutional Effectiveness	36
North Carolina Community College Performance Indicators	41
Critiques of Institutional Effectiveness	42
Critiques in relation to retention and graduation.	42
Critiques to student success and institutional effectiveness outcomes.	46
Faculty Perceptions	48
Loose Coupling	51
General Systems Theory	52
Summary	53
CHAPTER 3: METHODOLOGY	55
Overview of Q-methodology	55

Data Collection	56
The Research Design	59
Concourse Development	61
Q-set	65
P Set	66
Q-sort and Data Collection	66
Data Analysis	68
Factor Analysis and Interpretation	69
Consensus items	71
Distinguishing statements	71
Summary	72
CHAPTER FOUR: FINDINGS	73
Data Collection and Analysis	74
Participant Demographics	75
Statistical Process of Factor Analysis	80
Correlation between sorts	80
Factor Analysis and Rotation	82
Factor Loadings	85
Factor Arrays	88
Consensus Statements	92
Distinguishing Statements	93
Findings by Factor Group	94
Factor One: Lack of Faculty Influence on Institutional Effectiveness	94
Factor Two: Negative Views of Administration Guiding IE Outcomes	98
Factor Three: Equity and Value Determine IE Outcomes	103
Factor Four: Internal Stakeholder Driven IE Outcomes	107
Factor Five: Faculty Development Outcomes	111
Summary	115
CHAPTER 5: DISCUSSION AND IMPLICATIONS	117
Conclusions	118
Conclusion 1	118

Conclusion 2	121
Conclusion 3	123
Application to Theoretical Framework.....	128
Limitations	129
Implications for Practice in Community College Institutional Effectiveness	131
Recommendations for Future Research	134
Recommendations for College Administrators.....	135
Recommendations for Future Q Studies	138
Chapter Summary	138
REFERENCES	140
APPENDICES	149
Appendix A: Q-set	150
Appendix B: Demographic and Post Sort Questions	153
Appendix C: IRB Approval Letter.....	154
Appendix D: A copy of the opt-in email	155

LIST OF TABLES

Table 1: Demographic Questions.....	76
Table 2: Faculty Type by Factor	77
Table 3: Institution Type by Factor	77
Table 4: Gender distribution by Factor	78
Table 5: Ethnicity by Factor	78
Table 6: Education Level by Factor	79
Table 7: Years at current institution by Factor	80
Table 8: Correlation between factor z-scores	80
Table 9: Factor Solutions	83
Table 10: Factor Characteristics	84
Table 11: Flagged Factor Loadings	86
Table 12: Five Factor solution for faculty perceptions of institutional effectiveness practices and measures	87
Table 13: Factor Arrays	89
Table 14: Highest and lowest ranked items for Factor One.....	96
Table 15: Distinguishing Statements for Factor Two	99
Table 16: High and lowest ranked items for Factor Two	101
Table 17: Distinguishing statements for Factor Three.....	104
Table 18: Highest and lowest ranked items for Factor Three.....	105
Table 19: Distinguishing Statements for Factor Four.....	108
Table 20: Highest and lowest ranked items for Factor Four.....	109
Table 21: Defining statements for Factor Five	112
Table 22: Highest and lowest ranked items for Factor Five	113
Table 23: Highest Ranked Statements for the Five Factors.....	124
Table 24: Lowest Ranked Statements for the Five Factors	125

LIST OF FIGURES

Figure 1: Institutional Effectiveness Model.....	12
Figure 2: The Conceptual Framework for Measuring Community College Perceptions of Institutional Effectiveness Practices	15
Figure 3: The Cyclical Nature of Institutional Effectiveness Model.....	32
Figure 4: Institutional Effectiveness Cycle of Central Piedmont Community College.....	34
Figure 5: The Components of Institutional Effectiveness	36
Figure 6: Comprehensive Model of Assessing the Effectiveness of Community Colleges	38
Figure 7: Tinto’s Model of student retention.....	46
Figure 8: Research Design.....	60
Figure 9: Example of a Q-Method data grid.....	63
Figure 10: Scree plot representation of appropriate factor solution	84
Figure 11: Model sort for Factor One- Negative Attitudes of Faculty’s Effect on Institutional Effectiveness	97
Figure 12: Model sort for Factor Two- Negative Views of Administration Guided IE Outcomes	102
Figure 13: Model sort for Factor Three- Equity and Value Determine IE Outcomes	106
Figure 14: Model sort for Factor Four- Internal Stakeholder Driven IE Outcomes	110
Figure 15: Model sort for Factor Five- Expectations IE Outcomes.....	114

CHAPTER 1: INTRODUCTION

Background

Community colleges are diverse institutions that serve students from a variety of backgrounds. According to Dougherty, Lahr, and Morest (2017), community colleges are “Enrolling more than 6 million students each fall, . . . carrying out a crucial function in higher education by providing access to college, including baccalaureate opportunities, occupational education, remedial education, and other educational services” (p 2). Originally identified as junior colleges, the concept of the community college has been found in the United States since the early 1900’s. Both were considered synonymous until the 1950’s and 1960’s when the two terms split along the lines of private or religious affiliations and public institutions. The community college concept was developed and associated as a branch of the public sector of education. (Cohen, Brawer, & Kisker, 2014). “*Community college* came gradually to be used for the comprehensive, publically supported institutions” (Cohen, Brawer, & Kisker, 2014, p. 4). Many of the community colleges were founded with the concept of developing both vocational training programs, as well as programs more suited to transfer to the universities. These programs were put in place to help prepare the local population for the workforce or for furthering their educational opportunities at the university level. As emphasis on gaining a college education or developing a level of experience with vocational skill has proliferated throughout the US education system the community college rose to meet the need (Cohen, Brawer, & Kisker, 2014). With this delineation between programs, a split between these two faculty groups has arisen. Some of this division is natural based on what and how courses are taught, as most community colleges have traditionally been split into vocational-technical faculty or academic/transfer faculty members (Cohen & Brawer, 2003). Over the past 60 years the

colleges have seen a significant boost in enrollment from a few thousand to over 9 million today (Ginder & Kelly-Reid, 2018). Most colleges are seeing more transfer students enter their doors, which has led to a greater division between the two faculty groups found in the community colleges (Jenkins & Fink, 2016).

These changes have led to a change in the definition of student success which has shifted more to a student's particular program. Along with these changes came a notion that would allow the college to continue to work with both populations, assessing them on their unique criteria, but also with a need to have standards that are met by both areas of the college. This understanding is where the concept of institutional effectiveness was first introduced and implemented into the accreditation process. The idea of an office of institutional effectiveness, which would measure and provide data on a college's programs, was first seen in 1986 when the Southern Association of Colleges and Schools developed it for accreditation purposes (SACSCOC, 2012). Institutional Effectiveness is defined by SACS as "the systematic, explicit, and documented process of measuring performance against mission in all aspects of an institution" (Hoefer, 2016, p. 1). Since the start of institutional research, using institutional effectiveness measures have become a foundational response from colleges when developing and implementing programs. Research has shown that instructional quality and overall accountability are primary concerns for contemporary higher education institutions (Moosai, Walker, & Floyd, 2011). One issue that is currently facing the field of higher education is the development of effective goals and then the achievement of those goals. Institutional effectiveness is a broad term that encompasses many different aspects of the assessment of a college. In a data driven society, it is essential for colleges to have hard numbers that show they are achieving the goals they claim to the public.

Institutional Effectiveness

In the past, most measurements of institutional effectiveness dealt with the multiple areas of the college that focus on student success. Most assessments of student success are designed around measuring completion and graduation rates for degree-seeking full-time students (Hirschy, Bremer, & Castellano, 2011). This creates an issue for many two-year schools, as these theories and models are successful when applied to four-year colleges, but are not always transferrable to students at two year colleges. Given that four-year universities tend to enroll a different student population when compared to community colleges, it is easy to see where issues with measuring and comparing institutions could arise. Understanding student success outcomes in occupational programs in two-year colleges deserves focused attention as these students are known to have high drop-out rates (Bailey, Alfonso, Scott, & Leinbach, 2004). The open-door policy that is implemented in the community colleges throughout the nation requires that all students are allowed to register for classes regardless of past educational experience (Cohen, Brawer, & Kisker, 2014). Differences in the students' academic level, along with differing goals of academic/transfer faculty and CTE faculty, may explain possible differences in perceptions of the institutional effectiveness process between faculty that teach predominantly academic/transfer programs and those that teach predominantly in the CTE programs.

Recently, major community college success initiatives have been developed to tackle the unique and diverse issues that community college students present. With many community college students falling outside of the "traditional" 18-22 year old student definition, community college faculty face unique challenges not always experienced in the university system (Cohen et al., 2014). Initiatives like *Achieving the Dream* and *Completion by Design* are working with colleges to gather and analyze institutional progress and success data so that colleges are able to

quantify institutional effectiveness outcomes at their particular organization. The Aspen Institute is another organization that is having a significant influence in the world of higher education. The Aspen College Excellence program examines four primary areas that could help improve institutional effectiveness outcomes in colleges and universities. The four main areas that the Aspen Institute examines are completion, equity, labor market outcomes, and learning outcomes (The Aspen Institute , 2015, p. 4). These are represented in Figure 1.

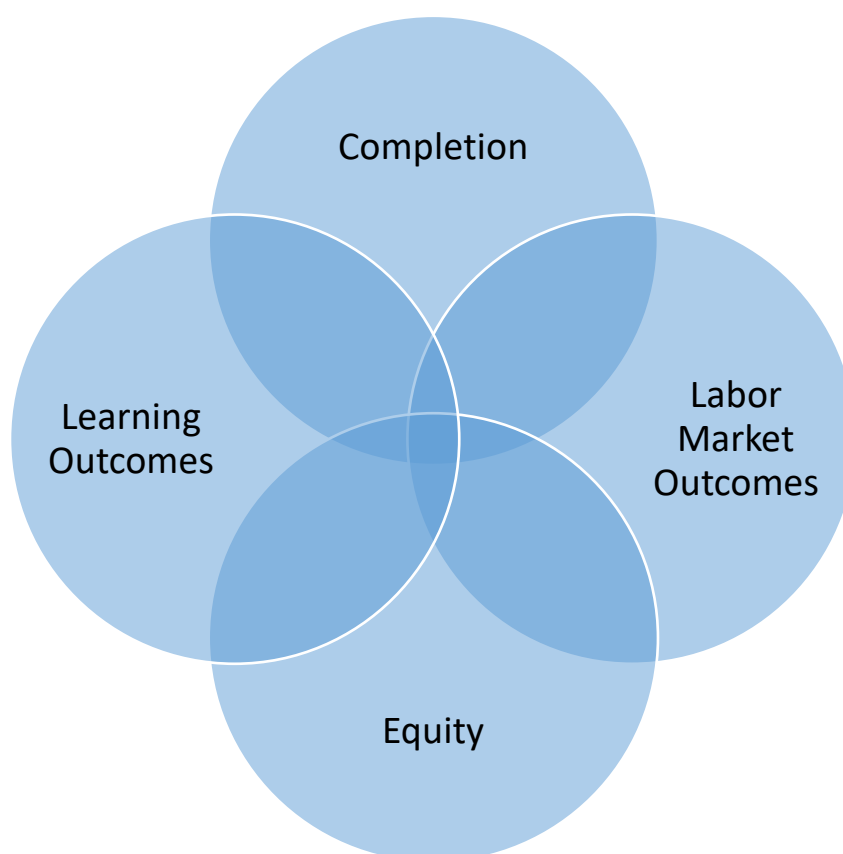


Figure 1: The Four Domains for Success

The completion outcome measures the more traditional outcomes of colleges, and seeks to answer the question of if students are earning meaningful credentials or degrees (Witham et al., 2014). The equity outcomes are designed to better fit the types of students found at

community college and are developed around the idea of ensuring equitable outcomes for minority and low-income students (Witham et al., 2014). The labor market outcome deals with tracking student jobs pre and post-graduation. This outcome is in place to follow the students as they enter the labor market to examine if they are gainfully employed in their particular field, or if they improved their employment standing after attending the community college. In many cases this outcome also evaluates whether the community college had a positive impact on the students entering the labor market. Along with this, the length of time, salary, and needs of the community for a particular program are assessed (Witham et al., 2014). The final outcome is based around student learning and seeks to measure if faculty members are setting their expectations for what students should learn, measuring whether they are learning, and using the information to improve in areas they may be lacking (Witham et al., 2014).

The Aspen Institute has also pinpointed some major issues with tracking students as they transfer from community colleges. A 2011 National Center for Education Statistics study found that though “the vast majority of students who enter higher education through community colleges each year indicate that they intend to earn a bachelor’s degree, only a relatively small percentage transfer and earn a bachelor’s degree” (Jenkins & Fink, 2016, p. 3). One of the key issues that face the field of institutional assessment in regards to student success after transferring is the different methods that colleges and universities use to track these students. “Transfer-out rates fail to capture a critical outcome for transfer students: whether they actually succeed in earning bachelor’s degrees. Four-year institutions are not required to report success rates for incoming transfer students to IPEDS” (Jenkins & Fink, 2016, p. 3). For the purposes of this study, this issue is paramount to the fundamental understanding of how academic/transfer faculty and CTE faculty view institutional effectiveness. Many transfer faculty members of the

two-year community college have no further contact or updates on the success of their former students once they have completed at the community college. “While many if not most community colleges examine the rate at which students transfer out, few systematically track which four-year institutions their students transfer to, and even fewer monitor the rates at which their students go on to earn bachelor’s degrees” (Jenkins & Fink, 2016, p. 3). This problem also continues into the four-year universities, where they mainly focus on students who entered the university as freshman while overlooking a significant number of students who transfer in. “According to the National Student Clearinghouse (NSC), in the 2013–14 academic year, 46 percent of students who completed a degree at a four-year institution had enrolled at a two-year institution at some point in the previous 10 years. In 14 states, more than half of four-year degree recipients had previously enrolled at a two-year institution” (Jenkins & Fink, 2016, p. 4). However, CTE programs at many two-year institutions have long been required to track the outcomes of their students once they have earned their degree or certificate. CTE faculty members traditionally have a better understanding of the current workforce climate than transfer faculty, however, it is still important that research examines the perceptions of institutional effectiveness for both of these populations.

The North Carolina Community College system has developed an annual performance report to inform colleges and the public of the performance at each of the 58 colleges in the system. Many of the indicators for success for the NCCCS are also similar to the needs indicated by the Aspen Institute. The system currently keeps records on seven measures at each college. These measures are: “Basic Skills Student Progress, Student Success Rate in College-Level English Courses, Student Success Rate in College-Level Math Courses, First Year Progression, Curriculum Student Completion, Licensure and Certification Passing Rate, and College Transfer

Performance” (North Carolina Community College System, 2018, p. 2). The colleges are asked to assess these on a three year cycle which allows for more transparency to the public. All 58 colleges are required to submit their data to the state. These indicators place value on both CTE and traditional college/university requirements. The NCCCS system is also required to submit information regarding institutional and system effectiveness on a federal level. Many of the schools within the system also provide this information from previous years on their institution’s websites.

The NCCCS has created a level of transparency that allows the public an in depth view into the effectiveness of each individual school, as well as the system as a whole. Similar to many universities, the system has based all of their indicators around student success initiatives to create more successful students while appeasing many of the stakeholders found throughout the system.

Statement of the Problem

Institutional effectiveness in the community college has traditionally had to serve a wide range of stakeholders. The mission of the community colleges are often diverse and include academic transfer preparation, vocational-technical education, continuing education, developmental education, community service, and intertwined services (Cohen et al., 2014). The purpose of this study, is to explore the perspectives that exist among community college faculty in regards to institutional effectiveness at their institutions. A majority of the programs and initiatives that are currently being used to assess colleges were initially designed to measure the effectiveness of the institution as a whole, and often did not consider the faculty’s perspectives on how institutional effectiveness data would be used or how certain practices or measures are delivered. While there is limited research on institutional effectiveness in the community college

in general, even less is conducted on faculty perceptions of institutional effectiveness. The faculty members are normally one of the frontline groups charged with initiating these practices and measures, yet they rarely have any say in what practices or measures are being chosen or implemented that could also be used to impact student success. Many times their voices are completely muted in the process, and they are simply asked to begin implementing these changes the following semester (Skolits & Graybeal, 2007).

“Student success in higher education has traditionally been defined by retention, graduation, and then career attainment. In addition, with the ever-increasing emphasis on college outcomes, attention has also focused on the achievement of specific learning goals as a means to define student success” (Dean, 2015, p. 1). If you asked most college professors of their goals for students, many would mirror the thoughts stated in the previous definition. Student success as it applies to the overall effectiveness of an educational organization has become a hot topic in the field of higher education. Most colleges and universities have some plan for achieving successful outcomes for their students and, with the increased funding from program initiatives such as “Completion by Design” and “Achieving the Dream,” the emphasis placed on institutional effectiveness has become even more significant. Cohen, Brawer, and Kisker (2014) have found that community colleges have been developing and implementing new initiatives at a significant rate in hopes of meeting these institutional effectiveness goals, but little research has been conducted on how the perceptions of the faculty may influence which initiatives are more or less successful. Being that faculty are traditionally a major stakeholder in the delivery of education to students, their perceptions on institutional effectiveness practices and measures may shed some insight into the most effective ways to create successful outcomes (Hom, 2011).

The majority of research on the topic of institutional effectiveness focuses on how it is implemented and measured from an administrative or organizational level. Rarely has research delved into the practices and perceptions of the faculty members that must implement these programs. The faculty is always listed as one of the key stakeholders in the success of institutional effectiveness, but seldom are their opinions or ideas solicited or examined (Hom, 2011). This is one of the key issues that this study hopes to alleviate. This research project aimed to shed light into the perceptions that faculty members held towards institutional effectiveness practices and measures at their community college. This study also considers how their perceptions may vary based on the faculty or program type, such as if an individual is considered academic/transfer faculty or career and technical education faculty (CTE). Considering that most community colleges have split their faculties between those who teach in CTE programs and those who teach in academic/transfer programs (Cohen, Brawer, & Kisker, 2014), this study aimed to evaluate any differences in how these two different sets of faculty members view institutional effectiveness initiatives. By splitting the faculty into the two primary groups found in today's community college system, CTE and academic/transfer faculty, this study sought to be able to pinpoint any delineations between the two groups as well as how their perceptions may impact the implementation of school wide initiatives.

Theoretical Framework

When assessing faculty perceptions of institutional effectiveness from the lens of a CTE or traditional faculty member it is essential to understand that these groups are parts of the same whole. Frequently, these two sections of the college are separated from one another on many levels, including how they are evaluated, the goals set for them, and how they track success. For these reasons the theoretical framework of loose coupling was chosen to view both CTE and

academic/transfer faculty members from their unique individual perspectives, and how these perspectives have an impact on institutional effectiveness as a whole. Since this research project was designed to evaluate how two different areas of multiple colleges work to achieve institutional effectiveness goals, loose coupling is an effective theoretical framework through which to view these independent sections of the institutional whole. The goal of this study was to evaluate the perceptions of institutional effectiveness from the perspective of the faculty members. This was achieved by comparing the responses of both CTE and academic/transfer faculty, and comparing how they rank certain aspects. This study also sought to draw a correlation between the two faculty types to determine if there are particular aspects of institutional effectiveness that both groups weigh more crucially than others.

Bess and Dee (2012) point out that in a loosely coupled system, “The ‘couplings’ or connections between the different parts of the system are not well specified, but instead of drifting toward sub optimization, the subunits seek to interact and work collaboratively” (p. 223). This is the premise of how loose coupling is becoming a predominant theoretical framework in today’s higher education systems. When framing a study around differences found between CTE faculty and academic/transfer faculty, loose coupling becomes an interesting theoretical lens through which to view the organization. Many times, the CTE and the academic/transfer faculty are viewed, treated, and assessed differently within their institutions. This concept as a whole falls closely into the ideas of loose coupling in higher education presented by Bess and Dee. While loosely coupled units are largely autonomous and have their own identity, they are still part of the same system and responsive to each other (Bess & Dee, 2012). Both CTE and academic/transfer faculty are members of the same institution, but many times are normally given complete autonomy from one another’s practices and work independently within the

confines of their parent organization's goals. Often, even the management system is set up differently for both aspects of the organization, with CTE and academic/transfer faculty having their own separate curriculum standards, department chairs, division chairs, and vice presidents within the college. Loose coupling plays a role in the community college organization based on the premise that both sides of the instructional organization are independent, but still work successfully with one another on a regular basis. When viewing the community college system through this loosely coupled lens, this theory becomes very relevant to the community college system as a whole.

These same principles can also be applied when discussing multiple community colleges within the same system. Since this study incorporates different and distinct community colleges within the same overarching state system, loose coupling will also apply based on the concept that while each college is autonomous of the others, they each must meet the same standards for system and accreditation purposes. The organizations work harmoniously with one another, yet maintain autonomy when making decisions that may impact their own organization.

Figure 2 represents the current institutional model from Coastal Carolina Community College which is in the North Carolina Community College system. This is a sister college to those used in this study.

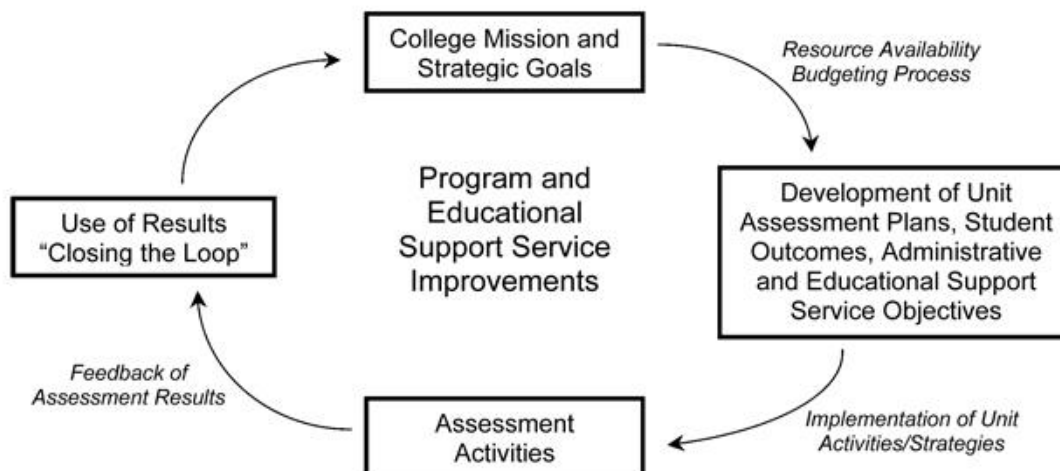


Figure 2: Institutional Effectiveness Model

Adapted from the Coastal Carolina Community College website, 2015.

Figure 2 provides a simplified look at how the loosely coupled system within this particular community college works to assess their institutional effectiveness practices and measures. This model provides insight into the value placed on specific aspects of the college, the goals that the institution hopes to achieve, and how successful the particular institution is at achieving those specific goals. Most of these models contain similar concepts dealing with things such as assessment, assessment plans, student outcomes, assessment activities, results, and how all of these impact the overall mission and goals of the college. The data is then collected, analyzed, and methods to achieve the institutional goals are adjusted or changed based on the results of the assessments (SACSCOC, 2018). These can vary in timeframe depending on the institution and what is being studied. Community colleges are loosely coupled systems where feedback is tied to the influence of internal and external factors. In the case of this study, academic/transfer faculty and CTE faculty are also considered to be loosely coupled members of the host institution. Institutional effectiveness is therefore impacted by both the internal and external factors that influence the decisions being made at all levels of the institution.

Since the development of the concept of institutional effectiveness in the 1980s, institutions have been driven to find better measures for assessing how their colleges are improving institutional performance. These measures have been highlighted even more after the “Great Recession” in 2008. “Published data shows that when the economy is good, enrollment in credit classes decreases because people are working and do not need to seek a college degree” (Frentzos, 2005). As the United States economy has gotten better, and in many cases federal and state funding has gotten worse, the need for more efficient and productive enrollment and retention measures have become more important (Cohen, Brawer, & Kisker, 2014). Many colleges have resorted to reviewing their current practices, while attempting to determine which current methods are the most effective. Recent research has focused in on particular themes of institutional effectiveness that provide key insights into how their organizations work.

It is for these reasons that loose coupling was chosen as the theoretical framework of the entire study. On many levels these colleges work with one another to achieve the overall system goals, just like both CTE and academic/transfer faculty work hand in hand to achieve institutional goals. However, both groups are allowed a certain level of autonomy that helps foster differences in how these particular measures and practices are implemented in their respective colleges. Loose coupling provides an adequate framework through which to view these entities and how they may shape the differences and the similarities in the perceptions of their faculty members.

Conceptual Framework

The goal of this study was to measure the perceptions of institutional effectiveness decisions among a primary internal stakeholder, the faculty. Faculty members’ perceptions were measured using Q-methodology based on a set of course items that deal with institutional

effectiveness. Figure 2 highlights the framework for acquiring these perceptions, as well as the process for determining into which areas the results may factor. Within Figure 2, both institutional effectiveness practices and open-ended questions that measure the perceptions of faculty members will be collected and used to develop concise items for the Q-methodology survey. These surveys were then distributed to both academic and CTE faculty members to measure their perceptions of these institutional effectiveness practices. The results were then split into thematic categories following factor analysis. The thematic categories were then examined in an attempt to measure any differences between the two faculty groups, similarities between the two groups, and the highest and lowest ranking statements for each group. This should provide future researchers, as well as current stakeholders, some insight into the views that faculty holds regarding particular institutional effectiveness practices.

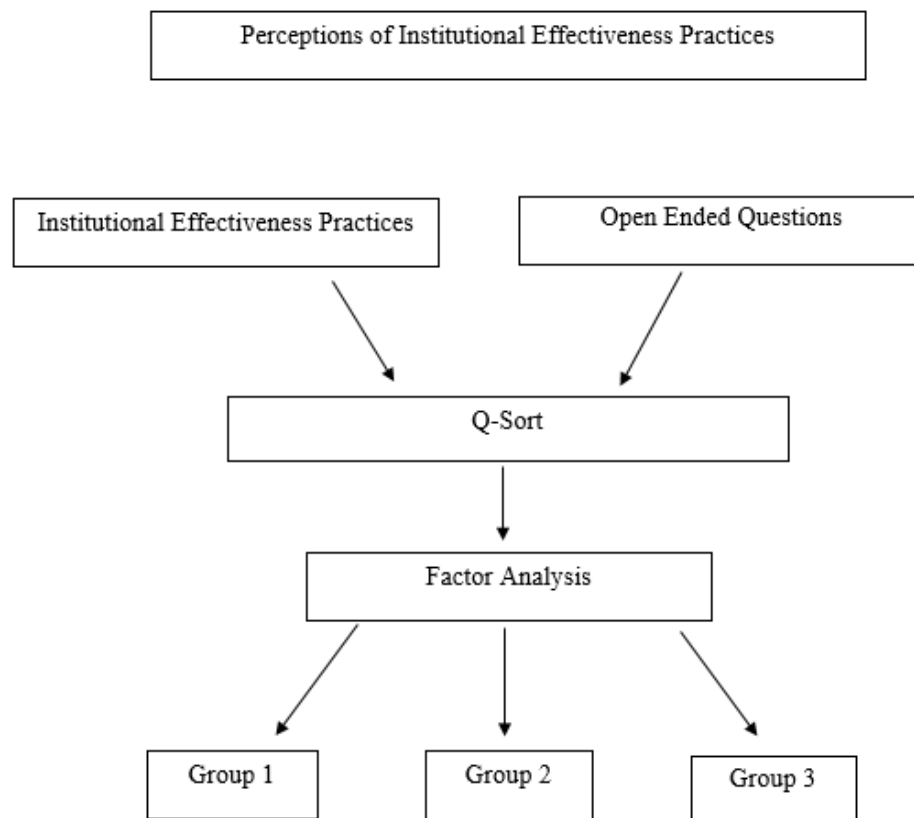


Figure 3: The Conceptual Framework for Measuring Community College Perceptions of Institutional Effectiveness Practices

Purpose Statement

The purpose of this study was to explore the perspectives of community college CTE and academic/transfer faculty member's perceptions of community college institutional effectiveness practices. The study will describe the perspectives and provide a description of the practices by viewpoint. The study will examine if there is a difference between CTE faculty and academic/transfer faculty perspectives on institutional effectiveness. Finally, the study will provide insight into the overall perspectives held by faculty members as it pertains to institutional effectiveness practices and measures at their particular community college.

Research Questions

The purpose of the study was to develop a comparison of faculty perceptions of institutional effectiveness practices based on whether the faculty member is considered a career and technical education (CTE) faculty member or an academic/transfer faculty member. With this concept in mind four research questions were developed to assess the potential impact that the determination between academic and CTE faculty has on the perceptions of institutional effectiveness practices.

- Research question 1: What are the viewpoints of community college faculty that emerge toward measures of institutional effectiveness and why?
- Research question 2: What items are similar between the viewpoints?

Significance of Study

This study adds to the current literature base of faculty perceptions of institutional effectiveness practices in the community college. Through the use of Q-methodology, the aim of this study was to pinpoint which areas of institutional effectiveness are found to be most and least influential on faculty member perceptions. Currently, while faculty is considered to be a significant stakeholder, the research tends to focus on administration and other parts of the college when assessing institutional effectiveness. Some research has pointed to faculty members' roles when enacting change as having a significant impact on the potential changes, but very little research has focused on the effect that faculty perceptions have on implementing and ultimately the success of institutional effectiveness initiatives (Skolits & Graybeal, 2007).

In conjunction with focusing on faculty's perceptions of institutional effectiveness, this study also aimed to verify variations, if any, between the perceptions of faculty that would identify themselves as career and technical education (CTE) faculty and those that classify

themselves as academic/transfer faculty. This is an important aspect of the study as many community colleges split their faculty into separate groups based on the types of classes they teach. These two groups are usually monitored and evaluated using different criteria based on their program areas. By analyzing this aspect of the community college, the study hoped to find similarities and differences between the two groups and how it relates to their perceptions of institutional effectiveness practices.

The implications of this study directly relates to future research of institutional effectiveness by providing insight into the perceptions of a primary group of stakeholders about the success of current initiatives. While administration has traditionally been viewed as the primary developer of institutional effectiveness practices, the faculty is traditionally the group that must enact these changes. While other research has touched on the administrative aspects of developing and implementing effective measures, rarely has the perspective of the faculty member been analyzed.

Another implication of the study comes in the form of evaluating information that may allow for colleges and their administrations to make better decisions based on the perceptions of particular practices or measures by those who normally have a large impact on the proposed solution's success. With student outcomes, retention rates, and completion rates being at the forefront of most evaluations of institutional effectiveness, it is essential to take into account how the faculty view these practices, as well as which practices they find to be the most and least influential in the development and implementation of their courses.

The significance of this study is to develop a better understanding of institutional effectiveness practices in today's community colleges through the evaluation of faculty perceptions of community college institutional effectiveness programs and practices. By

conducting this research, the data will provide valuable insight into the perceptions that faculty hold for the current initiatives being implemented by administrators across the board. This study will build on previous research, as well as extends the base knowledge of institutional effectiveness and the impact it has on one of the key stake holders in the community college system. This study also aims to determine if there are any differences in the perceptions of institutional effectiveness based on how faculty members would identify themselves, as either CTE or academic/transfer faculty as well as creating a basis for helping administrators create more faculty buy-in to the practices and measures used in their colleges. The final goal of this research was to provide insight into which aspects of institutional effectiveness are found to be the most important, as well as those that are the least important to the success of the initiative based on the faculty perceptions of the measures. In conclusion, the significance of this study is to extend the current research on the perceptions of both CTE and academic/transfer faculty members, and to possibly create organizational changes for the betterment of community colleges based on the perceptions of these initiatives.

Limitations

The possible limitations for this study include the limited amount of previous research completed on this particular topic, as well as capturing enough faculty members from both the CTE and academic/transfer faculty groups from multiple schools to provide the study with adequate insight into the perceptions of both faculty types. Currently the amount of research based around faculty perceptions of institutional effectiveness is very limited; this is particularly true when assessing the research that involves the institutional effectiveness in the community college. Relevant research discussing faculty perceptions and research discussing institutional effectiveness are available, but little has been collected that encapsulates both areas and their

impact on the implementation of effectiveness practices. Research that compares the perceptions that CTE and academic/transfer faculty hold on a particular topic is almost non-existent.

The sample size for a study of this sort would ideally contain 15-20 CTE faculty and 15-20 academic/transfer faculty members from the three largest community colleges in the North Carolina Community College System. These numbers would provide enough insight into the perceptions of both groups to create an adequate study. The type of methodology being used is a Q-methodology that examines their perceptions of around 40 different concourse items. Attaining an adequate number of faculty members may be difficult to reach due to the availability both CTE and academic/transfer faculty at each school. In an effort to minimize these limitations, the researcher personally reached out to contacts at each school to aid in the gathering of potential participants, as well as provide responding members with a Q-sort that was delivered through online software. This was an attempt to make the reply process as easy and efficient as possible, while accounting for others' time. In chapter five, there are also future recommendations for research proposed to address similar areas of research and other populations that were found to also impact the delivery and implementation of institutional effectiveness practices.

Delimitations

The Q-study will be bound to CTE and academic/transfer community college faculty only. This population was selected to provide an in-depth perspective into the perceptions that these stake holders have of institutional effectiveness. Research on community college administration, students, or other aspects of the institution will not be examined in this study. The focus of this study is to develop insight into the perceptions faculty members have of institutional effectiveness practices. The Q-methodology instrument is focused on 36 different

concourse items that serve as the framework for this study. The Q-methodology will allow for each faculty member's perceptions to be logged, while providing the research study with data that can be compared and analyzed to other faculty members to see what, if any, correlations there are between CTE and academic/transfer faculty. Faculty was chosen as the focus group due to their influence on the actual implementation of institution wide initiatives. Other key stakeholders of institutional effectiveness, like administration, have been the subject of many studies previously. For this reason, paired with the lack of research conducted on faculty members, is why faculty perceptions of institutional effectiveness is the key aspect of this study.

Definition of Institutional Effectiveness and Related Terminology

The literature on institutional effectiveness has provided researchers with a significant number of different definitions. SACSCOC, who first coined the term “institutional effectiveness” in 1984, defines it as “institutional effectiveness is the systematic, explicit, and documented process of measuring performance against mission in all aspects of an institution” (SACSCOC, 2012, p. 16). They further describe it as “a commitment to continuous improvement ... at the heart of an ongoing planning and evaluation process. It is a continuous, cyclical process that is participative, flexible, relevant, and responsive” (SACSCOC, 2012, p. 16). Essentially, institutional effectiveness is tied to all aspects of the college, as “institutional effectiveness includes all programs, services, and constituencies; is strongly linked to the decision-making process at all levels; and provides a sound basis for budget decisions, resource allocations, and plans for institutional improvement” (SACSCOC, 2012, p. 16). Head (2011), provided a much simpler way of defining institutional effectiveness by analyzing the “three A’s” which were assessment, accreditation, and accountability (p. 6). By examining these three items you are able to view how well a college is doing in regards to successful institutional effectiveness practices.

Meanwhile, McLeod and Atwell (1992) define institutional effectiveness as “the condition of achieving the set goals of an institution and being able to verify the attainment of these goals with specific data which show the degree or quality of their attainment” (p. 34). Many times, terms like institutional research or assessment are considered interchangeable with institutional effectiveness. This is mainly due to the fact that institutional effectiveness is itself a very broad concept. For the purposes of this study, the SACSCOC definition will provide the standard idea of what institutional effectiveness is, and the framework for which the concourse items have been developed for the Q-methodology.

The remainder of this section will highlight several key terms that are essential to one’s understanding of institutional effectiveness and the role it plays in the community college system. Literature on institutional effectiveness is full of many key terms that will be defined to create a clearer understanding of institutional effectiveness.

- *Accreditation*: “a statement of the institution’s continuing commitment to integrity and its capacity to provide effective programs and services based on agreed-upon accreditation standards” (SACSCOC, 2018).
- *Accountability*: “suggests that the institution is accountable for all aspects of its operation and all of its products” (McLeod & Atwell, 1992, p. 31).
- *Assessment* is “the process of descriptively evaluating the product of the institution in an objective manner” (McLeod & Atwell, 1992, p. 31). Sullivan and Wilds (2001) pointed out that assessment now focuses on how institutional performance relates to their goals and objectives.
- *CTE Faculty*: Career and Technical Education Faculty (Cohen, Brawer, & Kisker, 2014)

- *Effectiveness* “determines how well an institution succeeds in accomplishing its mission” (McLeod & Atwell, 1992, p. 33).
- *External Stakeholder*: Groups outside of the college that impact the decision making process; “research communities, alumni, businesses, social movements, consumer organisations, governments and professional associations” (Jongbloed, Enders, & Salerno, 2008, p. 305).
- *Institutional Effectiveness*: “the systematic, explicit, and documented process of measuring performance against mission in all aspects of an institution” (Commission on Colleges, 2005, p. 9)
- *Internal Stakeholder*: Groups within the college that impact the decision making process; “include students and staff (the community of scholars), administration and management” (Jongbloed, Enders, & Salerno, 2008, p. 305).
- *Mission* is an internally defined goal of an institution. “The mission statement defines in general and philosophic terms all of the production areas of the institution” (McLeod & Atwell, 1992, p. 35)
- *Outcome*. An outcome describes the “products to be accomplished by specific objectives” (McLeod & Atwell, 1992, p. 35).
- *Stakeholder* is defined as “a person or entity with an interest in some process, concept, or object” (Hom, 2011, p. 89).
- *Student outcomes* are a measurement of productivity in terms of student accomplishments (Bok, 1986).

Summary

This chapter provides an introduction to faculty perceptions of institutional effectiveness when framed in the context of CTE faculty perceptions vs. academic transfer faculty perceptions. This chapter also provided a theoretical and conceptual background for how these perceptions may impact the delivery of classes at the community college level. This study includes faculty members from both CTE programs and traditional programs from the community colleges in the North Carolina Community College System. From these colleges, this study aims to build on previous research, as well as provide some insight into the differences found among faculty types. This chapter also states the significance of this study, as well as provides an overview of key terminology and definitions of the study.

CHAPTER 2: REVIEW OF THE LITERATURE

This section will review the current literature surrounding the area of institutional effectiveness, faculty perceptions, loose coupling and how it relates to general systems theory, and how each relates to a college's overall institutional effectiveness practices. From its origination as organizational effectiveness, to its present incarnation, institutional effectiveness has become an ever present aspect of higher educational leadership. Accreditation has become centered on this concept, and the underlying themes of institutional effectiveness have started shaping how colleges and universities deliver all aspects of their programs.

The literature review has been divided into two major sections. The first section of the literature review will encompass the research based around institutional effectiveness. Within this section, the history of institutional effectiveness, its transition from organizational effectiveness, currently used measures of institutional effectiveness, and critiques to the current uses of institutional effectiveness will be examined. Also included will be newer initiatives that have been developed in hopes of creating better outcomes for current institutional effectiveness practices. The research conducted on institutional effectiveness will be primarily focusing on institutional effectiveness in the community college.

This research section will also cover another primary concept that focuses on faculty perceptions. While this is a newer area of study, this section will contain a review of the current literature to explain the concept, the evaluation of, and the impact of faculty perceptions on colleges and universities. "Faculty can wield immense influence, rather than authority, to alter institutional policy and behavior" (Hom, 2011, p. 91). This ability to influence policy and behavior is one of the primary reasons that faculty perceptions were added to this particular

review of the literature. For the purposes of this study, parallels between universities and community colleges are drawn when necessary.

Institutional effectiveness and faculty perceptions are the main focus of this research study. By providing insight and information into both of these two research areas, this study hopes to develop a greater understanding of the impact that these two areas have on today's modern community colleges.

From Organizational Effectiveness to Institutional Effectiveness: The Shift

“Student success in higher education has traditionally been defined by retention, graduation, and then career attainment” (Dean, 2015, p. 1) . These three concepts have become the main tenets of institutional effectiveness examined by internal and external stakeholders when assessing a college's overall effectiveness. Over the past couple of decades, retention and graduation rates have become the guiding principles in the development of institutional effectiveness measures and practices in today's community colleges. Colleges and universities have spent countless resources to figure out what can or should be done to increase both of these important indicators of institutional success. Over the years most colleges and universities have developed some plan for achieving successful outcomes for their students, and with the increased funding from outside program initiatives like “Completion by Design” and “Achieving the Dream,” the emphasis placed on creating effective institutional measures has become even more significant.

However, institutional effectiveness didn't just spring up overnight. It was developed and negotiated by examining how large business organizations achieved the best results. Researchers, colleges, and universities examined many years of data and results to develop the

concept of institutional effectiveness by adapting it from the industrial models of organizational effectiveness. .

Organizational effectiveness.

Institutional effectiveness has not always been the primary way to evaluate the success these organizations are having. Institutional effectiveness is a newer concept that branched out from organizational effectiveness measures that were developed in the business world. Cameron (1978) was the first researcher to tackle the concept of applying organizational effectiveness to higher education institutions. Cameron (1978) noted that the main issue with assessing organizational effectiveness is the lack of common criteria used in different studies to indicate if effectiveness was achieved.

“Criteria problems are the major obstacles to the empirical assessment of organizational effectiveness, and there are two general kinds. The first relates to the selection of the type of criteria indicating effectiveness, and the second relates to the sources or originators of the criteria. Problems of criteria type generally focus on (1) the aspect of the organization being considered, e.g., goal accomplishment, resource acquisition, internal processes, (2) the universality or specificity of criteria, (3) the normative or descriptive character of criteria, and (4) the static or dynamic quality of criteria.” (Cameron, 1978, p. 605)

Previous researchers pointed to outputs and goal accomplishment as the most widely used criteria to assess organizational effectiveness (Etzioni, 1964; Georgopolous & Tannenbaum, 1957; Hall as cited by Cameron, 1978; Price, 1972). However, there were problems with only using goal accomplishment; to combat these problems, alternatives were developed for assessing organization effectiveness. Cameron (2001) pointed out that two of these alternatives revolved around measuring performance. The shift to the measurement of performance then led to the

study of performance management, identifying a gap in the literature as it pertained to the determinants of organizational performance.

To account for these discrepancies when assessing the outcomes of educational organizations, Cameron developed a study that allows for the assessment of multiple independent areas of the college. The previous issues in studying organizational effectiveness were combined and led to the development of a nine-dimension instrument used to assess organizational effectiveness in higher education either in its totality or by dimension.

“The nine dimensions are: (1) student educational satisfaction; (2) student academic development; (3) student career development; (4) student personal development; (5) faculty and administrator employment satisfaction; (6) professional development and quality of the faculty; (7) system openness and community interaction; (8) ability to acquire resources; and (9) organizational health.” (Cameron, 1978, p. 614)

Smart and Hamm (1993) found that this instrument developed by Cameron (1978) was effective at measuring the organizational effectiveness of two-year community colleges. Smart and Hamm (1993) also pinpointed three main reasons why organizational effectiveness research in two-year community colleges is so important. The three reasons include:

- 1) “the community colleges they comprise the single largest sector of American higher education,
- 2) traditional measures of effectiveness for four-year colleges and universities (e.g., student selectivity, scholarly reputations of faculty) have limited applicability in this critical sector of American higher Education, and
- 3) the identity crisis that two-year colleges have been facing when attempting to balance multiple missions. John Smart has produced multiple other studies that attempted to study

organizational effectiveness of community colleges, and would appear to be one of the main leaders in this area of research”(p.489-490).

The transition from organizational effectiveness measures to overall institutional effectiveness measures became more prominent in the 1990s and 2000s, and has become an essential part of all colleges’ organizational agendas. At the forefront of this switch was Dr. Cameron, who provided integral research that applied the organizational effectiveness of for-profit organizations and shifted it to institutional effectiveness in educational organizations. A majority of colleges have developed some sort of institutional effectiveness plan with the goal of fulfilling the needs of all the stakeholders in the college, whether that be students, administrators, institutional research, faculty, board members, and the surrounding community. By examining the effectiveness of specific areas of the college, administrators are able to pinpoint areas of weakness with the goal of enhancing those areas to better suit the target group of stakeholders.

Institutional Effectiveness.

“Institutional effectiveness, at its core, is a combination of efficiency with success. Since all sectors of education have some common indicators of success such as learning outcomes, student retention and persistence to graduation, institutional financial viability.” (Goben, 2007, p. 3)

Institutional effectiveness is the evolution of the concepts created when studying organizational effectiveness and recreated for the use in colleges and universities. Institutional effectiveness was originally coined in 1984 by the Southern Association of Colleges and Schools (SACSCOC, 2012). Institutional effectiveness was initially created as a revision to the accreditation requirements. SACSCOC initially considered institutional effectiveness to be synonymous with assessment, but found the wording to be more pleasing to participants than the

term assessment. “So controversial and even intimidating was the ‘A word’ that new terminology had to be found to give a broader and more acceptable definition to the concept. That new term is what became known as institutional effectiveness” (Rogers, 1997, p. 1). Fast forward three decades and the term has largely become synonymous with all actions completed by colleges. “Institutional Effectiveness has become so important to colleges and universities that the language is embedded in accreditation and strategic efforts” (Goben, 2007, p. 1). The predominant reasoning behind the development of institutional effectiveness protocols was to create a higher level of accountability from institutions in regards to their practices. As colleges and universities moved away from self-accreditation to accreditation from regional accrediting bodies, it became important to establish a set of standards that can be measured by all colleges. “Most of the regional accrediting agencies revised accreditation criteria to include more purposeful and concise language about institutional effectiveness” (Goben, 2007, p. 1). All major colleges and universities have developed some model of institutional effectiveness that fits the standards of their regional accreditation body, and is meant to guide the strategic planning for all aspects of the organization. As institutional effectiveness has evolved, many schools have started developing plans that they hope to benefit their all stakeholders in regards to multiple areas of the college or university. However, at its core institutional effectiveness in educational organizations has an overall goal to foster learning.

To help researchers better understand the concept of institutional effectiveness Head (2008b) developed the “three A’s” to institutional effectiveness. The three A’s include assessment, accreditation, and accountability.

Assessment. Assessment is normally used in the context of student and college outcomes. Muffo (2001) states assessment “takes into account the fundamental shift on inputs to one on

outcomes” (p.60). In simple terms, Muffo (2001) is discussing the shift from colleges and universities using factors such as college ranking or funding to factors more oriented with the actual outcomes achieved by students and the institution, i.e. graduation rates, retention rates, and job acquisition of particular programs. Colleges must assess their own institutional outcomes and goals and then compare them with the goals outlined by their regional accrediting body. A majority of institutional effectiveness models highlight the assessment process as it is essential to achieving their goals, thus creating effective programs. As stated earlier, when initially developed, assessment was the term used to describe institutional effectiveness.

Accreditation. Accreditation falls on the list of the “three A’s” based on the fact that institutions must receive and maintain accreditation through their regional governing body on a consistent basis to continue to offer their services to students and the community. Accreditation has become a yearlong process at institutions, and in many cases has multiple employees whose sole purpose is to complete the processes outlined by accrediting bodies. These accrediting bodies have placed a major emphasis on developing institutional effectiveness measures and guidelines. This has progressed to a national trend as Head (2011) points out, “today all six regional agencies strongly advocate the importance of institutional effectiveness” (p. 6). As cited earlier, SACS is the first organization to introduce the concept of institutional effectiveness, but it was quickly adopted by other accrediting organizations. Dodd (2004) wrote, “Accreditation constitutes an important motivation to initiate outcomes assessment efforts” (p. 15). The emphasis placed on institutional effectiveness by these accreditation organizations almost guarantees that the creation of new and innovative institutional effectiveness practices and measures will never cease.

Accountability. The final “A” in the “three A’s” is accountability. The overall goal of accountability, and the reason it was used in Head’s (2011) “three A’s” is based on the external factors that demand colleges and universities stand behind their product. “The accountability dimension of institutional effectiveness has been an explicit concern of community colleges since the Southern Association of Colleges and Schools (SACS) adopted it as a review criterion in 1986” (Ewell, 2011, p. 23). Like with institutional effectiveness, accountability has also adapted and evolved over time. The importance of the adaptation and evolution from the previous concepts is highlighted by Head (2011), who states:

“Pressures to demonstrate institutional effectiveness arose—and continue to arise—as a result of such factors as the cost of higher education, the inability of college graduates to find meaningful employment, employer dissatisfaction with graduates’ skills and knowledge, accrediting agency requirements, attacks on academe from those within higher education, news stories criticizing colleges and universities, and the glacial nature of change within higher education (p.7).”

What Head (2011) is pointing out is that a college’s accountability towards achieving successful student outcomes is tied directly to its ability to accommodate the external stakeholders needs, as well as the overarching goal of educating students. These can be seen in the reception given to institutional effectiveness accountability standards by state governments. State governments “quickly embraced institutional effectiveness concepts and language when they developed statistical performance indicators and, in some cases, associated performance funding schemes” (Ewell, 2011, p. 23). In many cases, it is outside entities, including states, the federal government, or accreditation bodies, that are providing the accountability standards for colleges and universities. State governments, for instance, have a proportionately larger stake in

community colleges due to their financial investments into the colleges when compared to four year schools in the same state (Ewell, 2011). Since these large organizations are funding the colleges, they tend to hold the colleges accountable for the particular standards they deem crucial.

By examining institutional effectiveness through the lens of the “three A’s,” researchers are able to examine how multiple outside forces have shaped the concept of institutional effectiveness. Whether it is based on a social, political, or economic agenda, institutional effectiveness is greatly impacted by the many stakeholders found in the college and university systems. The basis for the institutional effectiveness model is tends to be centered on four primary goals: institutional purpose, goals/objectives/outcomes, evaluation of these results, and how the results are used. This concept is based on the SACS design of institutional effectiveness. This can be clearly seen in Figure 3.

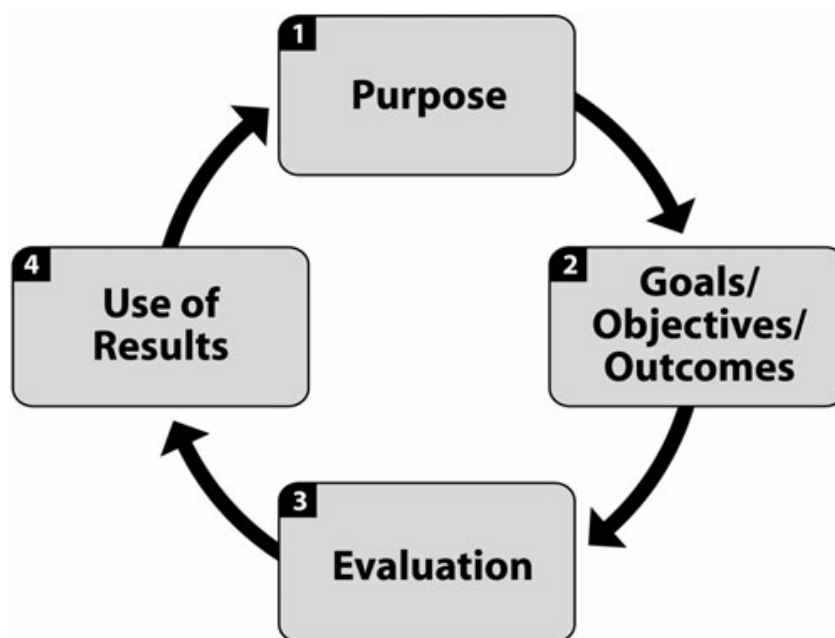


Figure 4: The Cyclical Nature of Institutional Effectiveness Model

Adapted from “The Evolution of Institutional Effectiveness.” (Head, The Evolution of Institutional Effectiveness in the Community College, 2011, p. 8)

The cyclical model shows how all of these categories are interconnected in the community college. All areas are connected back into the purpose of the community college based on the propensity of community colleges basing their mission and overall programs around their planned purpose. It is from this newly formulated purpose that goals and objectives are developed. The community college then evaluates whether these goals, objectives, or outcomes are being achieved and if they are successful. The evaluation can also be identified as the assessment portion of the cycle. From this evaluation or assessment of programs the college then decides whether the purpose or mission of the college is being met. The college then improves upon any issues to make their purpose more tangible and effective.

While Figure 3 highlights the basics of an institutional effectiveness model, many models are much more detailed with more long-term implications outlined. Figure 4 shows an actual model from one of the colleges, Central Piedmont Community College, used in this study. This model has the basics, but also provides more insight into the exact information the college wants to gain from their programs, and how they plan on gaining this information.

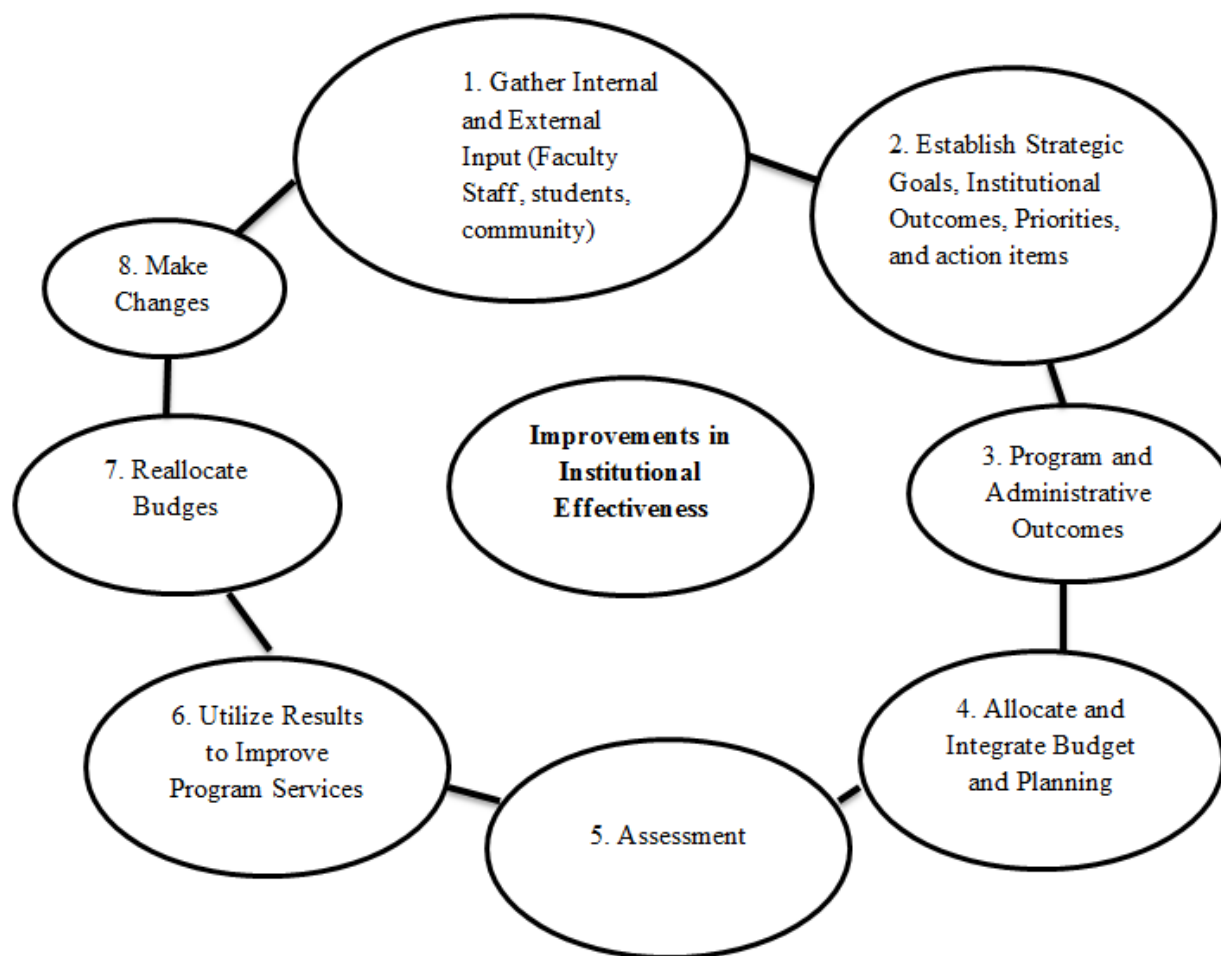


Figure 5: Institutional Effectiveness Cycle of Central Piedmont Community College

Adapted from the CPCC website. (CPCC, 2016)

When examining this model from CPCC, it is clear to see the four traditional categories that Head (2011) developed in the original institutional effectiveness model: Purpose, Goals/Objectives, Evaluation, and Use of Results. However, the community college added in more detailed information to provide exact ways of accomplishing the four primary goals in the annual institutional effectiveness model. Community colleges throughout the United States have similar plans designed to fit the individual needs of their particular institution. Some colleges

have even drafted multiple year plans to provide more transparency into the overall goals of the college and to illustrate how they plan to accomplish these goals.

Manning (2011) points to this as a process that colleges must conduct in multiple phases to be successful, stating “I define institutional effectiveness as consisting of a set of ongoing systematic institutional processes and practices that include planning, the evaluation of programs and services, the identification and measurement of outcomes across all institutional units (including learning outcomes in instructional programs), and the use of data and assessment results to information decision making” (p.14). Manning (2011) created this definition by examining the six major regional accreditation organizations to find similarities in the practices and protocols used to conduct effective institutional effectiveness measures. This builds on the previous concepts of institutional effectiveness. While some colleges may have changed the terminology from institutional effectiveness to institutional research, in many cases these are simply just a choice of nomenclature. It is probably easiest to see institutional effectiveness as the “umbrella” that covers multiple areas in the college that are being evaluated and researched to find the best practices. The concept of the institutional effectiveness umbrella is visually represented in Figure 6.

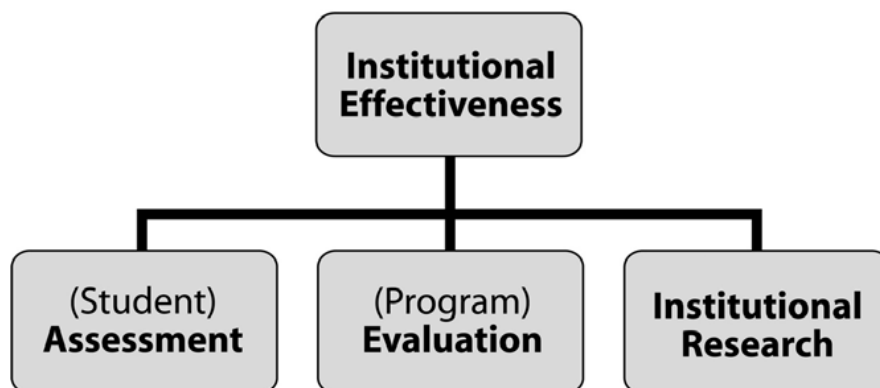


Figure 6: The Components of Institutional Effectiveness

Adapted from “The Evolution of Institutional Effectiveness in the Community College” by R. Head, 2011, p. 32.

Institutional effectiveness continues to be a widely accepted concept, but at times it is hard to define. It can be difficult for an outside entity to really know if the stated goals are being accomplished. This is where specific indicators that determine institutional effectiveness have been created.

Indicators of Institutional Effectiveness

To adequately understand institutional effectiveness, it is imperative that researchers not only understand the larger process as a whole, but also that institutional effectiveness research has exacting indicators that specifically pinpoint certain areas of effectiveness within the community college. Traditionally speaking, these indicators have simply been things such as college transfer rates, graduation rates, and student persistence (Hom, 2011). These indicators are normally determined by two primary sources, internal and external stakeholders. External stakeholders would be groups or organizations outside of the college that have impact on policy and the development of programs within the college. Hom (2011) identifies some examples of these stakeholders as government agencies, accreditation bodies, prospective students, employers in the community, and elected officials, just to name a few. Internal stakeholders are groups located within the college that have the ability to create changes in programming, such as

faculty, administrators, the board of trustees, and enrolled students. Hom (2011) also indicates that these stakeholders have differing levels of interest and authority over the practices that are decided on but grants that many of the high authority/high interest stakeholders groups are comprised of both internal (administration and trustees) and external stakeholders (state oversight and accrediting bodies). Alfred, Ewell, Hudgins, and McClenney agree with this by stating, “The core indicators are not mutually exclusive and can be shared by internal and external stakeholders” (1999, p. 17). This indicates that both stakeholder types have similar abilities to influence how institutional effectiveness is carried out in the community college. Figure 6 is an example of the comprehensive model of assessing effectiveness of community colleges as developed in the 3rd edition of the Core Indicators.

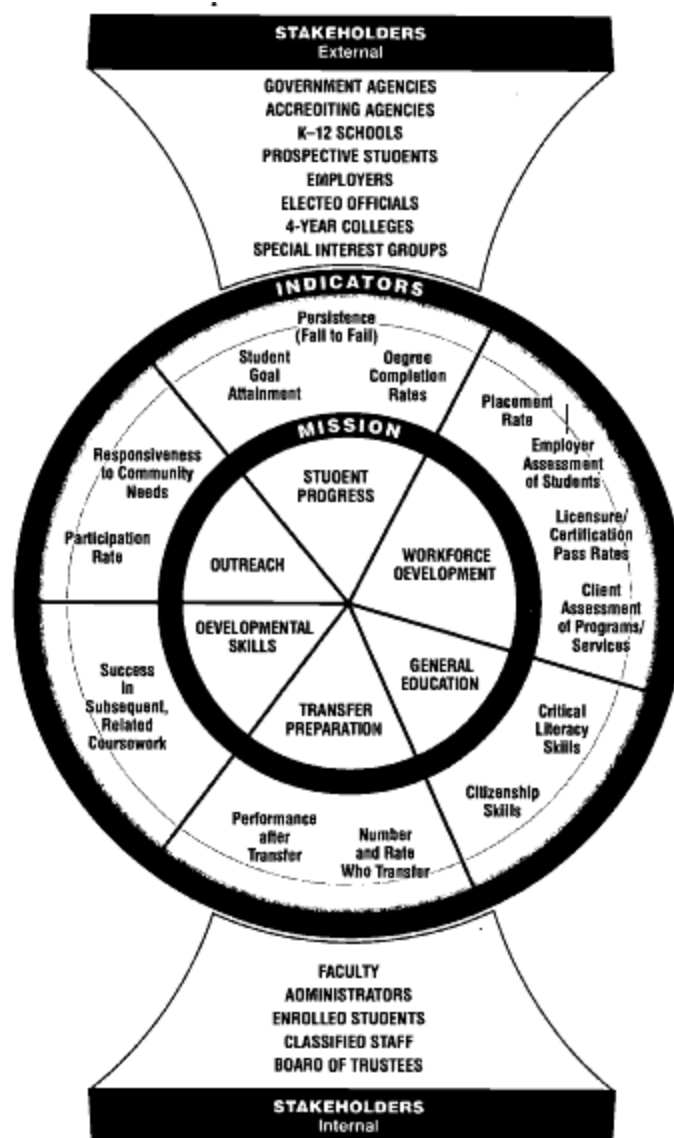


Figure 7: Comprehensive Model of Assessing the Effectiveness of Community Colleges

Adapted from Alfred, R. L., Ewell, A., Hudgins, J., McClenney, K (1999). *Community Colleges: Core Indicators of Effectiveness* (2nd Edition ed.).

Alfred et al. (1999) broke down the indicators of institutional effectiveness into six large categories. These “mission arenas” include Student Progress, Workforce Development, General Education, Transfer Preparation, Developmental Skills, and Outreach (p. 10). Within each of these different large categories, there are multiple ways of measuring each individual mission.

These are not considered to be randomized concepts, but instead isolated measures that when combined will indicate that an institution is effectively serving their constituents (Alfred, Ewell, Hudgins, & McClenney, 1999). For example, persistence and degree completion would fall under the “Student Progress” category. Individually, these are both considered important aspects of an institution’s mission, but this chart classifies them under the stakeholder they benefit the most. Figure 5 clearly shows how these areas are related, and the different indicators that are used to measure the success of each individual area. Interestingly, most institutions tend to focus on only a handful of these measures in any given year. It is important to keep in mind that these indicators can be college mandated or mandated by state or federal organizations. It is the institution’s job to balance these indicators of success and fit them into their mission (Alfred, Shults, & Seybert, 2007). The indicators range from job placement statistics, which are traditionally only shown in CTE programs, to student goal attainment. This can create multiple limitations when evaluating indicators to prove success.

One issue that has been highlighted in the research is the issue of tracking these outcomes at universities versus tracking them at two year colleges. A 2011 National Center for Education Statistics study found that while “the vast majority of students who enter higher education through community colleges each year indicate that they intend to earn a bachelor’s degree, only a relatively small percentage transfer and earn a bachelor’s degree” (Jenkins & Fink, 2016, p. 3). One of the key issues that the field faces in regards to student success after transferring is the different methods that colleges and universities track these students. “Transfer-out rates fail to capture a critical outcome for transfer students: whether they actually succeed in earning bachelor’s degrees. Four-year institutions are not required to report success rates for incoming transfer students to IPEDS” (Jenkins & Fink, 2016, p. 3). The tracking of these students is hard

to follow, which leads many academic/transfer faculty members of the two-year community college to have no further contact or updates on the success of their former students once they have completed their coursework at the community college. Few colleges track where their students are transferring to, let alone how well they are succeeding at their colleges of choice (Jenkins & Fink, 2016). These numbers are rarely tracked, but they do show promising statistics into the beneficial impact community colleges have on students. Jenkins and Fink continue to highlight this by stating, “according to the National Student Clearinghouse (NSC), in the 2013-14 academic year, 46 percent of students who completed a degree at a four-year institution had enrolled at a two-year institution at some point in the previous 10 years. In 14 states, more than half of four-year degree recipients had previously enrolled at a two-year institution” (p. 4). This highlights a missed opportunity in most cases to provide hard data into the benefits of community colleges.

Another issue that was highlighted in the research was that accreditation requirements can be different for CTE and academic courses. Many CTE programs at two-year institutions are required to track the workforce outcomes of their students once they have earned their degree or certificate. Given the differences in the student populations, this can be almost impossible from the academic/transfer side. CTE faculty members traditionally have a better understanding of the current workforce climate in their fields than academic/transfer faculty do. However, this could be an important area of institutional effectiveness that is being missed. Given the crossover nature of CTE courses with traditional courses, along with the push for more noncredit programs in career education (Alfred, Ewell, Hudgins, & McClenney, 1999), students may be better served by having this data tracked and disseminated to both faculty types.

These six indicators make up an integral part of the institutional effectiveness plan in today's institutions. It is important to highlight how these different indicators affect both internal and external stakeholders. However, the overarching theme is that much of the information being gathered is delivered by faculty, who in many cases are not even considered an important stakeholder in the matter (Hom, 2011).

North Carolina Community College Performance Indicators

The North Carolina Community College system has developed an annual performance report to inform colleges and the public of the performance at each of the 58 colleges in the system. Since 1993, the North Carolina Community College system has been compiling data based on specific measures. Since 2010, the system has moved to a three year review process to maintain current standards and to aid in the improvement of student success practices. (North Carolina Community College System, 2018). The system currently keeps records on seven measures at each college. These measures are: “Basic Skills Student Progress, Student Success Rate in College-Level English Courses, Student Success Rate in College-Level Math Courses, First Year Progression, Curriculum Student Completion, Licensure and Certification Passing Rate, and College Transfer Performance” (North Carolina Community College System, 2018, p. 2). These measures are used to create a system-wide baseline and excellence level for each of the seven measures, with the hopes of promoting transparency and objectivity throughout the system. (North Carolina Community College System, 2018). Many colleges include these measures on their institutional research or institutional effectiveness websites to provide the community with a transparent look into their curriculum rankings.

The North Carolina Community College system office also provides the public with federal performance measures recorded by National Reporting System for Adult Education. The

purpose of the federal measures is to assess the colleges in the system based on the workforce development system's six core programs: Employment rate (2nd quarter after exit), Employment rate (4th quarter after exit), Median earning (2nd quarter after exit), Credential Attainment, Measuresable Skill Gains, Effectiveness in Serving Employers (North Carolina Community College System, 2017). For this, the NCCCS must report annually to the Department of Education. These indicators are present on the NCCCS website, but not found on individual school websites.

The purpose of providing all of this information is to create a level of transparency about the individual institutions, and the system as a whole. Providing materials that indicate where all 58 schools rank, allows each school to develop a level of understanding through peer comparisons (North Carolina Community College System, 2018). By compiling a list that provides areas of strength and weakness for the institutions in the system, these institutions are better able to assess their past initiatives to create a better understanding of their level of success. These forms also create a level of transparency for all stakeholders of the organization, allowing for a better understanding how the system is functioning.

Critiques of Institutional Effectiveness

Critiques in relation to retention and graduation. Ewell (2011) outlines three major challenges to the assessment of institutional effectiveness: multiple missions, distinctive and diverse patterns of attendance, and a broad range of student characteristics. When evaluating the challenge of multiple institutional missions, the community college is the primary institution type that falls into this category. Many community colleges have competing missions that all tie in with the needs of the surrounding community. Without clear cut rules or guidelines passed down from administration, it becomes hard for colleges to serve their students or achieve the

particular outcomes they wish to accomplish (Robinson & Timperley, 2007). This section will address some of the primary issues facing institutional effectiveness measures in the community college.

One issue with the traditional measures of institutional effectiveness can be found in the retention and graduation areas. Historically, “understanding student success in occupational programs in two-year colleges deserves focused attention as these students are known to have high drop-out rates” (Bailey, Alfonso, Scott, & Leinbach, 2004). Calcagno et al. (2008) points to the main conceptual frameworks used to find student success in the past as being “persistence and completion” (p. 633). These two factors are normally found to be stronger at a four-year institution. Crisp and Taggart (2013) cited this issue in their research, with recent findings indicating that nearly three-fourths (75%) of first-time students who begin their academic career at a four-year institution persist, or are retained to the second year, compared to about 50% of first-time students who begin at a community college. Since many of the initiatives for accreditation are geared more towards four year universities, many times the two-year schools are found to be lacking in this area. Cohen and Brawer (2003) indicated that many students leave early due to achieving their goal of simply attending a few classes without the end goal of completing a program or earning a degree; “they got what they wanted then withdrew” (p. 62). In many cases the community college is being used as a means to accomplish some goal, maybe personal or maybe occupational. The university system on the other hand, is being used for degree attainment. Alfred et al. (1999) highlighted this when discussing program outcomes for career education. Many students entering those areas are not necessarily there for certifications or degree completion, but instead are taking classes simply to meet certain requirements at their workplace (Alfred, Ewell, Hudgins, & McClenney, 1999). In these cases, the historical standard

of student success would indicate these students as failing their goal of completion. This creates the illusion that the two-year college did not complete its student success goal, but from the actual student perspective there would be a positive experience with a goal achieved. That would indicate that it was a successful student outcome, or one in which students are achieving the goal they personally set out to achieve (Robinson & Timperley, 2007).

Completion has historically been one of the key indicators of success as Dean (2015) noted that “traditional measures of student success include completion, in other words graduation with a bachelor’s degree” (p. 28). The issue with the traditional sense of student success is that completion rates are once again, normally a solid indicator for universities but they do not always paint the entire picture at the community college level. Traditional measures of institutional effectiveness also don’t necessarily take into account outside factors such as institutional characteristics, student population characteristics, or even student goals. Calcagno et al. (2008) noted that the community college access mission is built on low tuition, convenient location, flexible scheduling, an open-door admissions policy, and programs and services designed to support at-risk students who may have a variety of social and academic barriers to postsecondary success. Low-income, minority, and first-generation college students all tend to have even lower six-year completion rates, and those who do complete among these populations tend to earn certificates rather than associate’s or bachelor’s degrees (Calcagno, Bailey, Jenkins, Kienzl, & Leinbach, 2008). Part of the community colleges’ primary purpose is to maintain an open-door policy that allows all students the opportunity to receive a college education regardless of their previous educational experiences.

Vincent Tinto is one of the most cited researchers when the topic of student retention is mentioned. Tinto has been conducting research on the area of student retention since the 1970s,

and is often cited by others based on his concept of student persistence being a primary factor in continuing their education, or being retained. His model was developed with the idea of changing the then standard idea that student retention was based solely on the student's abilities to remain persistent until graduation. Tinto (2006) once stated that "student retention or the lack thereof was seen as the reflection of individual attributes, skills, and motivation. Students who did not stay were thought to be less able, less motivated, and less willing to defer the benefits that college graduation was believed to bestow. Students failed, not institutions" (p. 2). This indicates that certain factors may be in play when students were making decisions on whether to continue their education or to forego it and move on to something else. However, it could also indicate that certain areas of guidance were being overlooked. Robinson and Timperley (2007) present the concept that student success and teacher effectiveness are interrelated. It is widely known that teachers have a great impact on their students, but rarely is teacher ability discussed. A large number of college faculty members have never received educational training and, in many cases, they are often not provided with opportunities to gain this through professional development. Combine this with a breakdown between leadership goals and teaching goals and it creates a significant barrier to successful student outcomes like retention (Robinson & Timperley, 2007). Pinpointing the barrier, if any, is one of the core concepts for the completion of this study. Ultimately, for the institution as a whole to thrive students need to have successful outcomes from their college experiences.

Tinto's research established what is now a widely-accepted notion that the actions of the faculty, especially in the classroom, are key to institutional efforts to enhance student retention (p. 5). Tinto's model of retention has become a "go to" model for many colleges and universities interested in increasing their student retention. It also closely resembles some of the institutional

effectiveness models that are being implemented in colleges and universities today. This model can be viewed in Figure 7.

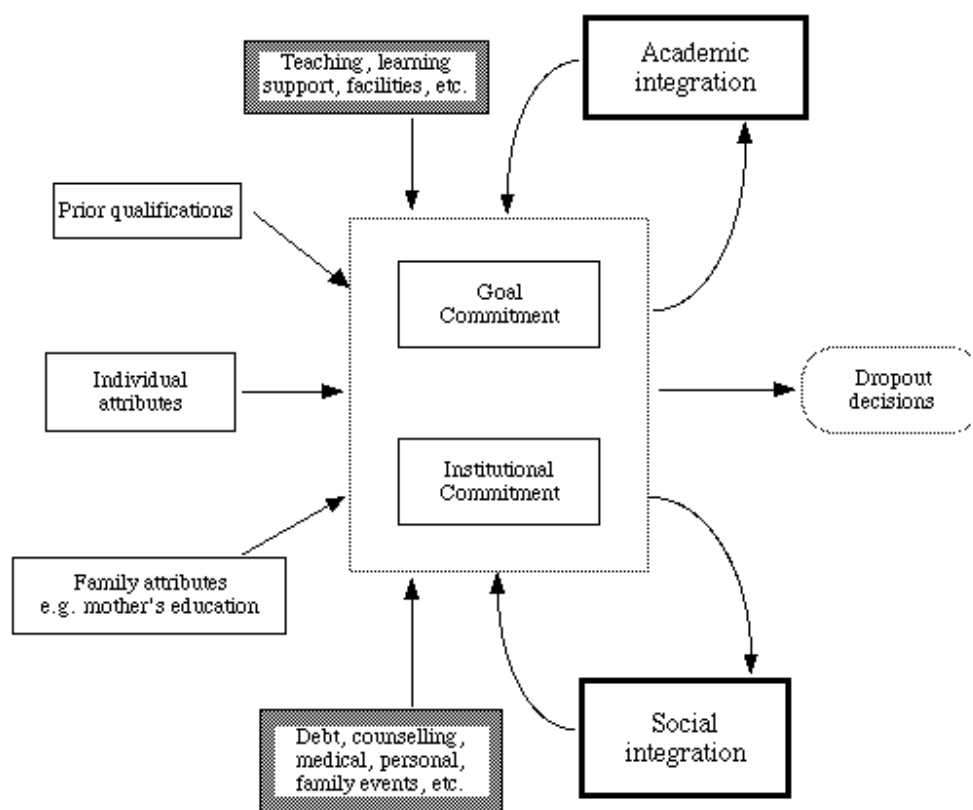


Figure 8: Tinto's Model of student retention

This model has been a significant influence on many current colleges and universities when developing a student retention plan. Research has shown there is more to institutional effectiveness than simply evaluating retention and completion percentages. There is also significant research that involves other activities that may aid students in achieving both the traditional and more contemporary ideas of student success.

Critiques to student success and institutional effectiveness outcomes. As has been pointed out in earlier sections, there are some critiques to the traditional student success model, especially with how it pertains to students in the community college system. Throughout the

literature many different researchers have attempted to describe or define student success, but there remains no definitive definition. Instead there are multiple aspects or characteristics of colleges and universities that are equated to being synonymous with student success. In the traditional sense, though student success has normally been measured by completion and retention percentages, there is so much more to this all-encompassing term (Alfred, Shults, & Seybert, 2007). While these do provide a quantitative means for evaluating schools, it does not always take into context the issues that are involved with creating successful students. Things like teacher competence, clearly defined goals, clear cut leadership, and strategic alignment of the institution are all facets of the student success model (Robinson & Timperley, 2007). As indicated earlier, four year schools consistently have higher completion and retention rates as compared to community colleges, and it is significantly skewed when measuring completion between the two. The majority of community colleges do not offer bachelor's degrees and often the drive for students to complete a two-year degree or certificate is lacking, especially students who plan on transferring to a four-year institution. Hoachlander et al. (2003) found that 90% of students planned to earn a degree or transfer to a four-year institution, but only 39% actually achieved a degree or certificate. This could be considered an alarming number of students who did not complete their program, but again, this only examines the completion rate, and there is no way to tell if the remaining students achieved their goals. Simply stating that graduation or persistence are the primary ways of attributing success is completely overlooking the intricate aspects of successful student outcomes.

Another issue that is not often discussed is the student's previous educational background. Four-year universities traditionally require students to apply and meet certain requirements to gain access to classes. This is not the case for the community college system.

The community college system is founded on an open-door policy, which allows all students to enter regardless of their previous educational experience; students entering the GED plus certificate programs never completed high school. Goldrick-Bab (2010) indicates that “the community college’s “second-chance” policy serves an essential function in a country where substantial numbers of poor and minority students leave high school without a diploma and even more often without developing strong writing, reading, and math skills” (p.438). With a high number of students needing remedial courses, “61% of students at community colleges take at least one remedial course while in college, and 25% take two or more remedial courses” (Goldrick-Rab, 2010, p. 438). Factors like these can increase the amount of time it takes a student to complete a program, which often correlates to lower completion rates and higher attrition rates.

With many community colleges focusing their institutional effectiveness practices around creating higher success rates for their students, it is obvious that these institutional factors play a large role in the changes in effectiveness practices that faculty may experience. Given that faculty plays such a large role in the ultimate attainment of these goals, this study hopes to gain insight into how the core indicators of institutional effectiveness apply to the faculty members perceptions.

Faculty Perceptions

Most of the research pertaining to faculty perceptions do not involve their application to institutional effectiveness. Most of the research around faculty perceptions is based around their thoughts on their teaching, their students, or their institutions, however, this research posits that faculty perceptions can be proven valuable when also applied to institutional effectiveness outcomes. “Anecdotal evidence indicates that many faculty members may also hold unique

perceptions about institutional effectiveness” (Hom, 2011, p. 91). Hom (2011) outlines this concept eloquently throughout the discussion of the factors on which faculty members tend to place emphasis. Outside of traditional measures such as transfer rates, graduation rates, or retention rates, many faculty members continue to perceive qualitative feedback, including personal growth, intellectual growth, and civic engagement, to be an important factor to measure when assessing institutional effectiveness. Concepts like equity or access may hold more significance to a teacher than retention from one semester to another (Hom, 2011). At the same time, other faculty members would argue that institutional effectiveness is a holistic concept that should include hard-to-measure properties such as contributions to community culture and health and that it is impossible to achieve an accurate and affordable measure of institutional effectiveness. A blueprint for success, then, is for any given educational organization to first be able to define, develop, and articulate institutional effectiveness internally. (Goben, 2007)

The perceptions we develop after interacting with others have a significant impact on the thoughts, feelings, and behaviors we display. Our perceptions are the basis of our understandings and interpretations of the things that are going on around us. Research on faculty perceptions of anticipated student behaviors have deemed them capable of coloring initial impressions of students that lead them to potentially pass or fail a course (Ellerbe, 2015). How a faculty member views particular students thus creates a framework through which the instructor and student interpret their interactions. The faculty member’s perception of his/her student population, as well as their perceived abilities, has a significant effect on the classroom environment (Ellerbe, 2015). Faculty member perceptions of particular students or classes in general can alter the way the faculty member interacts and ultimately teaches the individuals in each particular class. This would of course affect the way students learn, what they learn, and

how much emphasis they place on a particular class (Ellerbe, 2015). Faculty are on the front lines and in many cases determine whether students are able to achieve successful outcomes or not (Robinson & Timperley, 2007).

Faculty perceptions also extend to their understanding and the level on importance placed on student outcomes. Trowler (1998) states that focusing on outcomes creates more stress for faculty members, which could compromise their teaching. Finwick (2001) argues that quality teaching is declining because college and university faculties are so scrutinized over student outcomes. Research in this area is currently limited. Evidence does show that there is a correlation between the importance placed on particular outcomes and how the perceptions of faculty members plays a role in the delivery of their coursework to students. Royal, Eli, and Bradley (2010) indicate that the determination between a faculty members who identifies themselves as a faculty member who teaches in the social sciences versus a faculty member that teaches in the natural sciences may also shape how they perceive the importance of different outcomes for their students. In their study, Royal et al. (2010) found that both faculty member types placed a higher emphasis in the intellectual outcomes, but social sciences faculty placed significantly more emphasis in this area than in the cognitive or cultural outcomes of the students that attended their classes. These results are important to this study, as this could show a correlation between differences in perceptions of certain outcomes due to the differences in faculty type. This is a very interesting find when considering that this study will be examining differences in perceptions between Career and Technical Education faculty and traditional transfer faculty.

Faculty's awareness of their role in the college, as well as their ability to influence decisions also has a significant impact. Traditionally faculty members have been considered a

low interest and low authority stakeholder in the development of institutional effectiveness practices and measures. Due to this, many place more value in a holistic view of institutional effectiveness (Hom, 2011). In general the research base around faculty perceptions is low, which this study aims to expand. With most studies focusing on perceptions from an administrative level, this study aims to create a well-rounded view of how faculty perceptions pertain to current institutional effectiveness practices and measures they encounter daily.

Loose Coupling

Weick (1976) presents the concept of loosely coupled systems, organizations which contain components, people, elements or variables which are loosely connected through weak or indirect ties, but are still responsive to each other. Bess and Dee (2012) point out that in a loosely coupled system, “The ‘couplings’ or connections between the different parts of the system are not well specified, but instead of drifting toward sub optimization, the subunits seek to interact and work collaboratively” (p. 223). Given the nature of community college systems, as well as how faculty from different areas of the college interact, it can be ascertained that these individual institutions and faculty groups are loosely coupled to the benefit of each system, i.e. the institution or system wide. Loosely coupled units are largely autonomous and have their own identity, they are still part of the same system and responsive to each other (Bess & Dee, 2012). This concept ties in perfectly with the community colleges within a system. North Carolina has 58 individual community colleges within the bounds of the system. This means there are 58 different boards, administrative units, faculties, and students that must be considered when developing practices and measures for institutional effectiveness. On a surface level loose coupling applies to the system, but on a deeper level the faculty types that make up the parts of

the institution, CTE and academic/transfer faculty, are also loosely coupled systems within each of the institutions.

For this study, loose coupling is being used as the theoretical framework through which the study will analyze differences between the perceptions of faculty members found throughout one of the fifty-eight community colleges in the North Carolina Community College System. Loose coupling was chosen for its ability to analyze systems that are autonomous to one another, but under the same umbrella system. Hagan et. al's (1979) indicates that loose coupling would be applicable to this study based on loose couplings' relationship to organizations "which are responsive to one another, while still maintaining independent identities and some evidence of physical or logical separateness" (p. 508). Loose coupling's application to both the institutions in the larger system and the two faculty groups within each institution creates a strong foundation for the use of loose coupling as a basis for the theoretical framework of this study.

General Systems Theory

General systems theory was originally developed for the field of science. The general idea behind it was best described by von Bertalanffy, who postulates that "Since the fundamental character of the living thing is its organization, the customary investigation of the single parts and processes cannot provide a complete explanation of the vital phenomena" (p.411). This idea states that you cannot make assumptions about the whole by only looking at certain aspects or "parts" of the system. As the theory grew and developed, it was adopted outside of the field of science. General systems theory was soon applied to other fields, and the idea of the "organism" could be associated with groups or other organized entities. Swanson (2009) states that "organizations are systems" (p.130). This statement is one that supports the notion that using general systems theory as a lens for viewing educational systems, such as community colleges, is

feasible. Given that in many colleges have split their CTE faculty and their traditional educational transfer faculty into separate parts of the college, systems theory would apply as both groups make up a different part of the same system. Since this would indicate these groups are part of the system, this also allows for the study to apply that loose coupling between the groups of the same system is a valid use of concept.

For this study, general systems theory functions well based on the necessity to view the organizational processes while examining the parts of the whole. In simple terms, when comparing faculty perceptions of institutional effectiveness measures and practices we must examine the parts of the system that must implement said measures and practices. Therefore, this deeper examination into how the has institution valued particular measures, if that impacts particular perceptions, the experiences of the individual faculty members and their impact on the particular practices and the perceptions of the practices, and if the classification of CTE vs. college transfer faculty impacts the perceptions is warranted. By looking at these multiple parts to develop a general understanding of the perceptions of institutional effectiveness measures and practices that CTE vs. educational transfer faculty hold, we are able to develop a clear understanding of how these perceptions impact the individual schools as well as the community college system they are located in. The concepts of general systems theory as they are applied to this study aides in allowing loose coupling to provide an excellent framework through which we can examine these perceptions and the impact they have on achieving successful student outcomes.

Summary

The literature review addressed two major themes of institutional effectiveness and institutional effectiveness measures found in today's colleges and universities. The focus of

these measures was based around their uses in the community college system. The goals of the literature review were to describe what institutional effectiveness and institutional effectiveness measure are, how they are currently measured, and critiques to institutional effectiveness measures.

The second major theme of the literature review addressed other factors such as the impact of faculty perceptions, the evaluation and assessment of institutional effectiveness and effectiveness measures, as well as critiques to institutional effectiveness measures. This section also outlined some of the current initiatives being completed by outside organizations to create more innovative strategies for attaining effective institutional effectiveness measures.

CHAPTER 3: METHODOLOGY

This chapter provides an overview of the methodology used to measure the perceptions that academic/transfer and CTE faculty hold in regards to institutional effectiveness measures and practices through the use of Q-methodology. An overview of Q-methodology, along with information pertaining to the selection of the Q-set, P sample, and how the data was analyzed will be outlined and discussed within this chapter. Finally, this chapter will provide an overview of the study.

Overview of Q-methodology

The purpose of Q-methodology is to allow participants to express their personal viewpoints in a way that they “can be quantified and held constant for inspection and comparison” (Brown, 1997, p. 8). The subjectivity of the participants is the key component of this study. “Subjectivity underlies human thought as it is expressed through an individual’s values, attitudes, beliefs, feelings, and opinions” (Stanigar, 2016, p. 87). When assessing individual perceptions of particular topics or issues, the use of Q-methodology is one of the primary ways that researchers can gain insightful information into the perceptions of the participants in a particular study. Q-methodology achieves this by allowing participants to rank concourse items based on their subjective opinion of the relative importance placed on each item. The researcher must develop a specific Q-sort, and must determine which items will make up the particular concourse for the study. Concourse items are normally determined by assessing previous research in the field and finding underlying themes that are present across previous studies. Concourse items can also be specific to particular groups of participants when it is called for in the research study. After the concourse has been created the participants then rank the concourse items based on the perceived importance to each individual participant. After all

participants have completed the Q-sort the researcher is then able to analyze the different participants' responses about their perceptions, and can examine the results to find the major similarities and differences in each individual participant's viewpoint.

For the current study, Q-methodology was deemed to be the most efficient method of gathering the perceptions of the two main instructional groups in the community college system, traditional academic/transfer faculty, and career and technical education instructors (CTE). The Q-methodology will allow all participants to provide subjective feedback on course items, and will aid in determining any similarities, differences, and the strength of the correlations between the groups of instructors. Based on Q methodologies strengths in delineating between participants perceptions, it was determined to be the best method for measuring the faculty members' thoughts and feelings towards the subject. Q-methodology was developed to "pursue correlations between persons, rather than correlations between tests or variables" (Watts & Stenner, 2012, p. 12). As described earlier, in many cases, institutional effectiveness measures and practices are developed and applied to the entire college, however these two faculty groups usually work to achieve these goals independently of one another. To gain insight into the similarities and differences between these groups, the researcher must accomplish multiple steps before the actual study can be completed. These steps include developing a course, data collection, and then analysis of the data.

Data Collection

The research data was collected through the use an online data collection tool called Q-sortware. Q-sortware was developed to create "software aiming at a smooth completion for participants and with a set of handful options for the researcher who is planning the research design" (Pruneddu, 2017). This software is designed specifically to collect Q-sort data through

the use of internet based surveys. The next step was the development of a sorting statement, which sought to create the overall foundation for the study. In this study the concourse items were based around the sorting statement, “*When considering measuring and practices for institutional effectiveness in your community college, please rank the statements from most like my viewpoint to least like my viewpoint*”. After the development of the sorting statement, the concourse items were developed based around institutional effectiveness, which was then further narrowed into a 36 question Q-set used for this study. After receiving IRB approval to conduct the survey, an opt-in email requesting access to faculty participants was then sent out to all 58 colleges within the North Carolina Community College system. The reason all of the colleges were solicited was to allow for a larger sample size of faculty members with a broader range of perceptions to receive the Q-sort, with the hope of gathering more insight into faculty’s opinions of specific institutional effectiveness measures and practices they experience. A number of schools did not allow participation or never responded to the initial email. The colleges that did grant access to their faculty received the IRB approved opt-in email asking faculty members for their participation in the study. Once received, faculty members that chose to participate in the study were asked to send an email to facultyperceptionstudy@gmail.com. This email was set up specifically for this study, and once enough participants were gathered, it was closed to ensure no identifiable information would be available. After a participant opted into the study, they were provided a link that included a form to collect demographic data, the actual Q-sort, and post sort follow-up questions that allowed faculty members to elaborate on their perceptions. Faculty was also asked to identify whether they are traditional academic/transfer faculty or CTE faculty. Each of these data points were collected to provide insight into the possible differences between the two faculty groups found in most community colleges.

Upon completion of the demographic portion of the study participants were asked to complete the Q-sort for this study. Within this Q-sort, faculty members were asked to rank the Q-set items based on their personal perceptions of institutional effectiveness measures and practices they may have experienced at their current college. Participants aligned the Q-set statements based on their perception of which institutional measures and practices they felt were least effective to the measures and practices they felt were most effective while providing their perceptions of the remaining statements between the two poles. These were all given a numerical value ranging from -5 to 5 to aid in the analysis of the data. Participants placed each individual statement in order in sections that are broken up into numerically, much like that provided in Figure 3. Once completed, the results were documented and compiled into a data file by Q-sortware. The file was then downloaded to a private computer on a private server, where the results were input into R Analysis software and SPSS data analysis software for the analysis of the data received from the participants.

Information such as faculty type (academic/transfer or CTE), institution type (urban, suburban, and rural), gender, race, and length of time at their current institution were all gathered in the demographic analysis. These statements were designed to provide a general background for the participants. Watts and Stenner (2005) point out that the inclusion of demographic data may or may not highlight particular trends. After completion of the demographic study and the Q-sort, participants were to complete the post sort questionnaire. The post sort questionnaire was created to allow participants to further explain their reasoning behind their statement choices. Q-methodology uses a mixed methods, meaning a blend of both quantitative and qualitative analysis methods, approach to a study. The post sort data is how the qualitative portion of the study is developed. It was put in place to allow a more well-rounded view of the

perceptions that participants had or why they chose particular statements during the study. The post sort questionnaire for this study was developed for this exact reason. The questions listed on the post sort questionnaire can be found in Appendix B. These results were also gathered by Qsoftware.com and any potentially identifying information was deleted.

The Research Design

This study explored the perceptions of faculty members at various community colleges in the North Carolina University System. All of the community colleges were contacted via email asking to distribute the “opt-in” email found in Appendix D. Approving colleges were then asked to distribute the opt-in email to faculty. Faculty were asked to opt-in to the study by sending an email confirming their participation to facultyperceptionstudy@gmail.com, which was made specifically for this study. Once this information was received, the faculty member was sent a demographic study, the Q-study, and a post Q-sort survey providing the opportunity to provide further explanation into their reasoning for choosing specific items.

The faculty members in this study were asked to determine which of two different groups the best fit into. The two faculty categories were career and technical education faculty (CTE) and academic/transfer faculty members. Academic/transfer faculty traditionally teach courses that will transfer into university system, while career and technical education faculty traditionally teach in two-year certificate programs or other specialized programs.

This Q-methodology study was conducted in five stages: (1) building a collection of statements, called a concourse; (2) selecting participants, called a P sample; (3) facilitating card sorts with participants, called a Q-sort; (4) analyzing the data; and (5) interpreting the results (van Exel & de Graaf, 2005). For the purposes of this study, the facilitation of the card sort will be completed with an online software program, Qsoftware.net. This method was chosen due to

its ability to reach more participants and to speed up the data collection process. Figure 9 provides a visual representation of the studies research design.

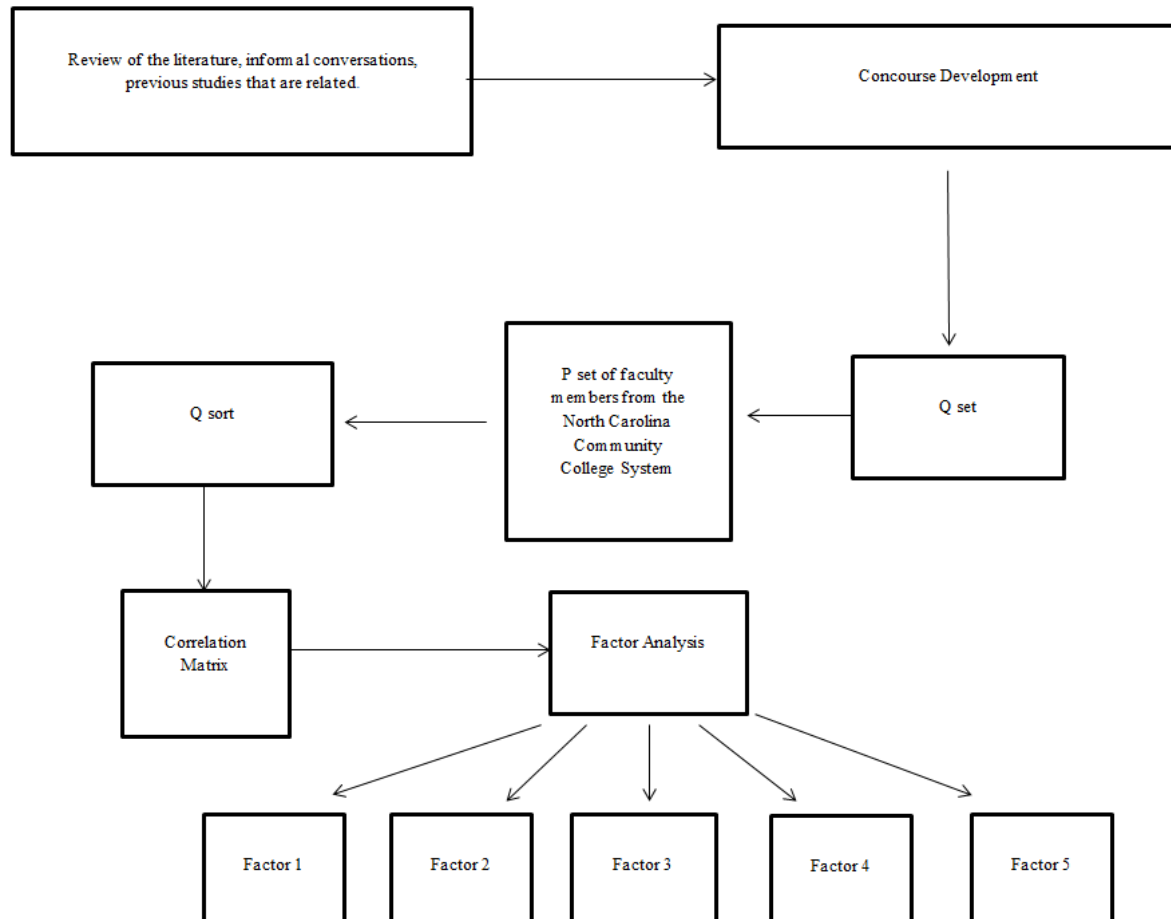


Figure 9: Research Design

Q-methodology was chosen to best capture the perceptions of each faculty group based on the method's ability to conduct a *by person* factor analysis. The Q-set for this study was adapted from the literature surrounding institutional effectiveness, as well as a study measuring the perceptions that community college presidents in community colleges throughout the US held in regards to institutional effectiveness measures and practices. Some of the aspects of the previous study that have been adapted for this study can be found in Appendix A. The original

study developed by Juliet Laughlin (2015) involved community college presidents and was titled “Assessing the Measures of and Defining Community College Institutional Effectiveness: A President’s Perspective Delphi Study.” The items for this study were adapted to better suit the target population of community college faculty members. The statements that pertained to faculty members’ perceptions were amended from the questions asked to community college presidents or completely modified from other literature while maintaining the original concepts. Faculty was chosen as the target population, as they are one of the primary stakeholders in delivering institutional effectiveness measures and practices, but are often not consulted when particular measures are being developed. This study highlights which measures and practices faculty deem to be most important for the success of their classes, students, and institutions overall.

This study assessed the perceptions that each faculty member holds about particular Q-set items, and by using factor analysis the study pinpointed similarities and differences in viewpoints, along with which items were ranked highest and lowest by the participants. The study was created to generate a clear picture of which institutional effectiveness measures were listed as important to faculty members so as to pinpoint any similarities or differences faculty may have to better enhance the delivery of these measures and practices.

Concourse Development

The concourse development phase is essential to the success of a Q methodological study. Q-methodology is designed to extract participants’ subjective opinions (Cross, 2005). The concourse items are statements that reflect a wide variety of statements about a particular topic. In this study the statements were based around the sorting statement, “*When considering measuring and practices for institutional effectiveness in your community college, please rank*

the statements from from most like my viewpoint to least like my viewpoint". The concourse items were developed to identify individual participant's opinions of a particular topic. Once concourse items were determined, the statements were narrowed down and a Q-set was developed that participants then ranked for this particular study. The Q-set allows the participants to place the items based on their own perspective on the topic. All potentially leading statements or statements of fact were removed from concourse items. If these types of statements were given to the participants, it could invalidate some of the results. Participants traditionally rank concourse items based on extent to which one agrees or disagrees with the item. Participants will rank items based on their individual level of agreement or disagreement with each particular item. Figure 10 demonstrates the general concept of ranking of Q-set items. Within this example participants are asked to rank the statements that correspond to numeric score that the researcher will use for data analysis later. The numeric response relates to the participant's beliefs about each item, -4 (most disagree) to +4 (fully agree). The Q-set can vary in size depending on the amount of statements that are being evaluated by the participants. The original concourse created for this study had 52 statements, but it was narrowed to 36 statements that fell on a scale of -5 to +5.

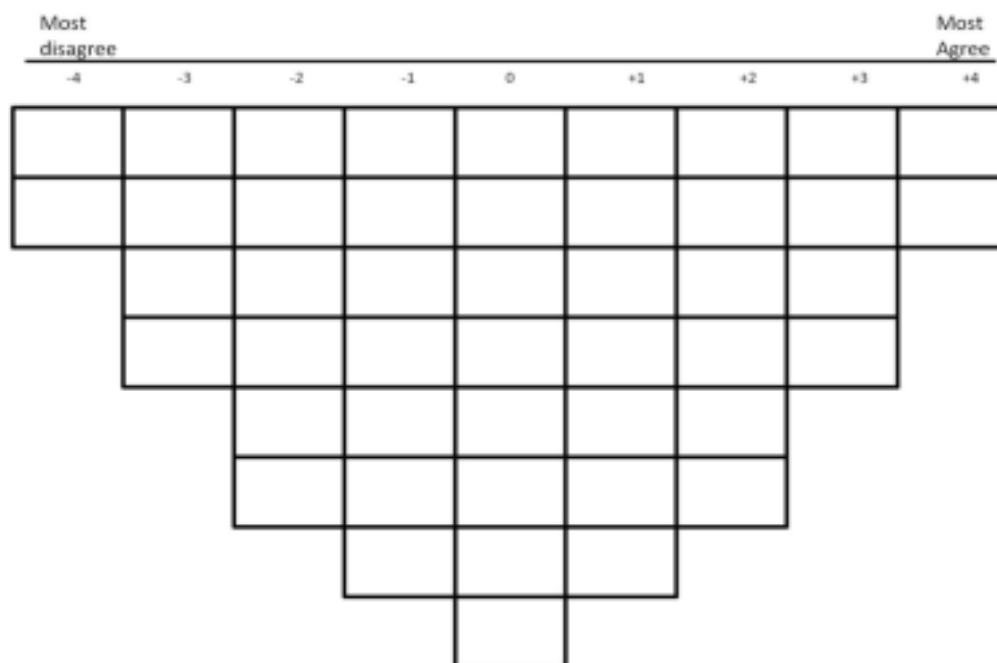


Figure 10: Example of a Q-Method data grid

For this study, the concourse items were created through a thorough study of the research, casual conversations with colleagues, and some were modified from a previous Delphi study conducted to assess institutional effectiveness measures and practices with community college presidents, some of which were found in the North Carolina Community College System. The statements were analyzed and modified to be more applicable to the study's target demographic of faculty members within the North Carolina Community College system. The Delphi study was found to be highly relevant to the current study due to its correlation with administrators in the same system as well as from other systems in the US. The aim of this study was to gather perceptions of faculty members. The researcher felt that combining both groups' results, administrators from the previous study and faculty from this study, could provide a much greater level of insight into effective practices and measures for future institutional research. A copy of

the Q-set along with questions for the demographic study and the post-sort questionnaire can be found in Appendices B and C.

“The Q-sort involves participants sorting a set of statement cards (the Q sample) drawn from the larger concourse of possible opinions, feelings, or beliefs about a topic” (Stanigar, 2016, p. 73). “It is up to the researcher to draw a representative sample from the concourse at hand. The concourse may consist of self-referent statements (i.e., opinions, not facts), objects, pictures, et cetera” (van Exel & de Graaf, 2005, p. 5). The Q-set was derived by narrowing down 52 statements about institutional effectiveness into 36 statements that were used in this study. Van Eeten (1998) found that a Q-set often consists of 40 to 50 statements, but also noted that less or more is perfectly normal. van Exel and deGraaf (2005) went on to describe the selection of Q-set items as more of an art form than an actual science. The statements were narrowed down to create a more specific set of statements that better related to the participants in this study. The preferred participant group for this study was faculty members in the North Carolina Community College System, so it was important to create a set of statements that faculty would find a relationship with. As mentioned earlier, the sorting statement that this study focused on dealt with the faculty member’s perceptions of institutional effectiveness measures and practices being implemented at their community college. Given that all community colleges in the North Carolina Community College system are accredited by the same organization, SACS, and run by the same system office, it was anticipated that the measures and practices at each college were similar in nature. In accordance with the sorting statement, the concourse items for this particular study were developed around general institutional effectiveness measures and practices identified by extensive reviews of literature, and backed up by through statements of faculty members, and a previous study conducted with college presidents found in

the same North Carolina system. Statements about particular institutional effectiveness measures and practices were provided in the Q-set, and each individual was asked to rate them based on their individual perceptions of those measures and practices at their college. Their results were collected anonymously by Q-sortware and placed into a data file. After all 21 faculty members submitted, the Q-sort was closed and the study moved into the data collection phase.

Q-set

The Q-set is the reduction of the concourse statements (van Exel & de Graaf, 2005). The Q-sets purpose is to develop statements that represent a “wide range of existing opinions” on the particular topic (van Exel & de Graaf, 2005, p. 5). Watts and Stenner (2005) describe its purpose is to create different, but recognizable statements regarding the subject of the study. Watts and Stenner (2012) state “a Q-set must be tailored to the requirements of the investigation and to the demands of the research question it is seeking to answer” (p. 57).

The Q-set for this study was created from the literature, as well as a previous study conducted with presidents in the same community college system. Because this study with the presidents was so recent, many of the questions community college presidents were asked were still relevant to today’s faculty members. The statements were modified to fit the target population, and will allow for even more insight into the perceptions held by internal stakeholders of community colleges. 36 statements were narrowed from 52 statements to create the Q-set for this particular study. These 36 statements were determined to be sufficient as they were considered “representative of the wide range of existing opinions about the topic” (van Exel & de Graaf, 2005, p. 5).

P Set

The P set is the group of participants in a Q-study (Watts & Stenner, 2012). Respondents are asked to rank concourse items based on their individual perceptions based on their general attitudes or feelings towards the statements (van Exel & de Graaf, 2005). Traditionally the P sample is smaller than the number of concourse items. Watts and Stenner (2012) note that “large numbers of participants are not required to sustain a good Q methodological study” (p.72). “The aim is to have four or five persons defining each anticipated viewpoint, which are often two to four, and rarely more than six” (van Exel & de Graaf, 2005, p. 6). All 58 community colleges in the North Carolina Community College system were contacted to distribute the study. Even with traditionally low response rates, the number of respondents should provide a relevant number of responses, thus making the Q approach a valid option. The final number of participants that completed both the Q-sort and the other materials was 21. Per previous discussions, this was considered to be a reliable number of participants given the number of statements from the Q-set.

Q-sort and Data Collection

The research study was submitted to the Institutional Review Board (IRB) at North Carolina State University for approval. The IRB approval letter is found in Appendix C. Once the project had gained approval, the process of contacting each of the 58 community colleges seeking permission to complete the study was conducted. The list of approving colleges was not created, as it was not outlined as an integral part of the study and could potentially violate the terms of confidentiality. The approving colleges were provided with the opt in email to be forwarded to their faculty. The opt in email can be found in Appendix D. Participants were then asked to contact the study specific email to officially opt in and receive the links to complete the study.

The research data was collected through the use of an online data collection tool called Q-sortware. This software is designed specifically to collect Q-sort data through the use of the World Wide Web. Once received, faculty members that chose to participate in the study were provided a link that included demographic data, the actual Q-sort, and post sort follow up questions that allowed faculty members to elaborate on their perceptions. Faculty was also asked to determine whether they are traditional academic/transfer faculty or CTE faculty along with other demographic information. This was to provide insight into possible differences between the two faculty groups found in most community colleges.

Upon completion of the demographic portion of the study participants were asked to complete the Q-sort for this study. Within this Q-sort faculty members were asked to rank the Q-set items based on their personal perceptions of institutional effectiveness measures and practices they may have experienced at their current college. Participants aligned the Q-set statements based on their perception of institutional measures and practices they most disagreed with to measures and practices they most agreed with while providing their perceptions of the remaining statements between the two poles (Watts & Stenner, 2012). These were all given a numerical value ranging from -5 to 5 to aid in the analysis of the data. Participants placed each individual statement in order in sections that are broken up into numerically, much like that found in Figure 5. Once completed, the results were documented and placed into a file by Qsortware.com. The file was then downloaded to a private computer on a private server, where the results of the demographic study were input into SPSS data analysis software while the results from the Q-sort were run in R analysis software.

After completion of the demographic study and the Q-sort, participants were asked to complete the post sort questionnaire. The post sort questionnaire was provided to allow

participants to further explain their reasoning behind their statement choices. Q-methodology uses both quantitative and qualitative approaches to interpret the results of a study. Watts and Stenner (2012) have explained that the open-ended feedback is important in understanding the various viewpoints that emerged from the factors. The post sort data is how the qualitative portion of the study is developed. It was put in place to allow a more well-rounded view of the perceptions that participants had for a particular study. The questions listed on the post sort questionnaire can be found in Appendix B. These results were also gathered by Q-software and provided a broader understanding of the results that were received from the initial Q-sort.

Data Analysis

The data analysis was conducted using both R Statistical Data Analysis Software and IBM's SPSS statistics software. The data was gathered by using Q-software to collect the data without providing any personally identifying information. The results were gathered into a data file on the website that was then downloaded to a private computer on a private server. After being cleaned of any potentially personally identifiable information, the demographic information was input into the SPSS software. The items were analyzed to provide a demographic representation of the P sample participants. The Post sort questionnaire was analyzed qualitatively by the researcher to provide greater depth as to why specific measures were chosen. The demographic data and Q-sort was analyzed quantitatively to provide individual perceptions that were held about specific measures and practices.

A *by-person* factor analysis through the use of R Statistical Data Analysis Software was used to quantify the participant's perceptions of institutional effectiveness measures and practices. This is the inverse of a traditional *by-variable* factor analysis, also known as R-methodology. The Q factor analysis was chosen for its ability to quantify viewpoints of the

participants by the variation seen within the population. Q factor analysis identifies clusters, or factors, of people who share common viewpoints in relation to the statements (Pruslow & Red Owl, 2012). R methodology also tends to use participant data that can be measured passively. Q-methodology requires the participant to play an active role through the card sorting process (Woods, 2012). For these reasons, it was determined that Q-methodology was the best method to conduct and complete the study based around faculty perceptions of institutional effectiveness measures and practices. Q-methodology is traditionally used when assessing individual's perceptions of particular items, which is exactly what the current research study aimed to measure in regards to faculty perceptions of institutional effectiveness measures and practices. Perceptions based on faculty type adds another layer to the current study by analyzing if faculty type, traditional academic/transfer faculty or career and technical education faculty, had an impact on the perceptions of certain IE measures or practices.

Factor Analysis and Interpretation

Factor analysis was the primary method of interpreting the data. Q-methodology is traditionally associated with quantitative research due to its use of factor analysis (Brown, 1996). van Exel and de Graaf (2005) note that the Q method is an inversion of the traditional R factor analysis due to Q relating people instead of tests. The factors were examined by eigenvalue and percent of variance to determine the appropriate number of factors. This is used to provide the researcher with a level of communality between the Q-sorts. High commonality would designate that the results were typical or highly representative of the overall group (Watts & Stenner, 2012). The correlation matrix was examined to aid in the determining of factors. The correlation matrix simply broke down how closely the individuals ranked particular items and

compared them to others. This is what ultimately loads particular individuals into particular factors. It was based on the similarity of their responses, thus determining similar viewpoints.

From here the factor analysis is conducted. The factor analysis looks for the number of natural groupings based on similarity or dissimilarity (van Exel & de Graaf, 2005). For this study, it was determined that five factors best suited the results of the participants. This was based on each factors eigenvalues, or explanatory strength. The factors must satisfy the Kaiser-Guttman criteria of the factors being higher than 1.0. Variance is also examined as it will indicate the full range of meaning for the study (Watts & Stenner, 2012). Variance can also be understood as the shared meaning between the factors. The goal of the researcher is to explain as much variance as possible to make possible determinations of the shared meaning found in the study. The purpose of conducting the factor analysis was to compensate for as much of the variance as possible.

The scree test was conducted by examining the scree plot that ranked the factors by eigenvalues. “The number of factors to extract is indicated by the point at which the line changes slope” (Watts & Stenner, 2012, p. 108). The scree plot chart was examined to find where the factors evened out, allowing for another layer of interpretation of the factors. This also accounts for the fact that some factors may satisfy the Kaiser-Guttman criterion, but are not necessarily be found valuable to the study.

The factors are then rotated to preserve as much variance as possible. For this study a varimax rotation was conducted. This was determined to be the best course of action, as the varimax tends to describe the viewpoints of the group. (Watts & Stenner, 2012). It is also more likely to guide the researcher to a workable factor solution.

To gain this information the data was run through R statistical software. The data was then analyzed to determine factor arrays, factor loadings, and total number of factors for the study. The results the statistical analysis can be found in Chapter Four. The demographic data was analyzed using SPSS, and correlations between the factors and the demographic groups were also outlined in Chapter Four.

Through the factor analysis both consensus items and distinguishing statements were highlighted. These two statement types create the backbone of the information provided by the study. In simple terms, these are the statements that provide similarities between all factors as well as the similarities between the sorts that loaded into each factor.

Consensus items. “A statement that is not distinguishing between any of the identified factors is called a consensus item” (van Exel & de Graaf, 2005, p. 10). Watts and Stenner (2012) conclude that identifying these consensus items will help highlight the factors that were ranked or valued by the participants. For this study, this was found particularly interesting as these statements highlight the similarities between both CTE and academic/transfer faculty members, as well as the general faculty members of separate colleges within the same system. This will provide an interesting look into how these groups and organizations determine their initiatives.

Distinguishing statements. Consensus items will show similarities between factors, and distinguishing statements are going to be what creates the factors themselves. These statements tend to create a more holistic view of how the participants ranked particular items (Watts & Stenner, 2012). These statements are traditionally determined by examining the statement’s score and seeing if two of the factors scores exceeds the difference score, which is usually $p < .01$ (van Exel & de Graaf, 2005). These scores are traditionally used to highlight the differences between the factors. The purpose of this study was to conclude what perceptions were similar

and which perceptions stood out among faculty groups. This purpose indicates that Q-methodology was the best solution to determine this.

Summary

This chapter developed an overview of how Q-methodology was used to measure and assess faculty perceptions of institutional effectiveness measures and practices. This includes the six phases of the Q-methodology, including concourse development, determining of the Q-set, selection of the P set, data collection, data analysis, and interpretation. This chapter also outlined the process of gaining IRB approval and the study outline.

Chapter Four will provide a detailed explanation of the findings with an examination of each of the five identified viewpoints among community college faculty in regards to institutional effectiveness. Chapter Five will elaborate further on the implications for policy and practice and the practical meanings behind these findings.

CHAPTER FOUR: FINDINGS

The chapter presents the results of the Q-methodology study. The goal of this study was to answer the research questions posed in Chapter One:

- a) what are the viewpoints of community college faculty that emerge toward measures of institutional effectiveness and why,
- b) what items are similar between the viewpoints,

In Chapter Three the steps of Q-methodology were discussed in detail, and the research design for the study of faculty perceptions of institutional effectiveness were presented. The data that was analyzed in this chapter came from the 21 participants of the Q-sort. The concourse items were drawn from the literature based around institutional effectiveness practices and measures. Faculty was chosen as the target participant as they are familiar with the topic and “have an opinion on the subject matter being studied” (Bartlett & DeWeese, 2015, p. 76).

The first part of Chapter Four discusses the demographic analysis and statistical findings of the factor analysis of the results of the Q-sort. The numerical data is displayed after the input of the data in the R-software, with demographic analysis being conducted through SPSS. This section will describe the quantitative results of the R analysis. Within this section the researcher will provide the reader with a) demographic data, b) the number of interpretable factors, c) emerging perceptions of both faculty groups, and d) similarities between the faculty groups, as well as the differences that emerged between the two faculty groups.

The second part of Chapter Four will discuss the qualitative results that were gathered through the post sort survey. These statements were combined with the factor analysis findings to develop greater insight into the perceptions held by faculty members in regards to institutional effectiveness practices and measures. Use of the participants’ own words will aid in providing

more in depth analysis of the statements and provide a holistic view of faculty members' beliefs in regards to institutional effectiveness practices and measures. The chapter ends with additional findings.

Data Collection and Analysis

The initial request for participants was sent to all 58 community colleges in the North Carolina Community College system. The purpose of choosing all 58 colleges was to compensate for traditionally low response rates. For this study, 21 faculty members from various colleges throughout the North Carolina Community System responded to 36 concourse items relating to the faculty members' perceptions of institutional effectiveness practices and measures. The 36 concourse items were developed through analysis of the current literature of institutional effectiveness practices. Watts and Stenner (2012) point out that "a participant in a Q-study is invited to impose their own personal meanings, or psychological significance, onto the items in the Q-set, which are ultimately rendered homogeneous in relation to each individual sorter" (p.70). Participants rank statements in relation to one another and their own preconceived notions of the particular topic. For this study, all of the participants ranked statements that were tied to institutional effectiveness practices and measures.

Once the sorting process was complete, the collected responses were compared to one another and analyzed using factor analysis. Factors or themes/groupings of responses emerged that indicated which perspectives were prevalent among the participants. A "forced or forced choice" Q-sort was used for this study to achieve the goal of participants ranking various concourse statements in relation to one another. Block argues that this form of Q-sort "provides data in a [more] convenient and readily processed form" (as cited by Watts and Stenner, 2012, p. 78). Watts and Stenner (2012) indicate that "Q-methodology aims to capture whole

configurations and to reveal viewpoints as a whole” (p.78). Using the forced choice method “represents the most convenient and pragmatic means of facilitating the item ranking process” (Watts & Stenner, 2012, p. 78).

Participants submitted their completed sorts via submission to the online website “Qsortware.net.” Along with the results of the Q-sort, participants also completed a demographic analysis and post sort survey. Participants were to rank the statements on a scale of -5 to +5, indicating “Most Unlike” to “Most Like” as it relates institutional effectiveness practices and measures seen at their institution. Throughout the survey window, twenty one (n=21) faculty members responded from various colleges throughout the North Carolina Community College System. This was deemed to be a statistically significant number of participants based on the number of factors that were being analyzed in this study (n=36). In regards to the number of participants in this study, Watts and Stenner explain that “Q-methodology has little interest in taking head counts or generalizing to a population of people” (2012, p. 72). Watts and Stenner (2012) also note that it is wise to stick with a number of participants that is fewer than the number of items in the Q-set. Q is focused squarely on establishing that particular viewpoints exist and is intended to help the researcher “understand, explicate, and compare them” (p. 72).

Participant Demographics

This study sought to determine the perceptions of institutional effectiveness practices and measures held among academic/transfer and career and technical education (CTE) faculty members of two year community colleges.

Twenty one faculty members from throughout the North Carolina Community College System participated in the study, with all twenty one participants providing their demographic

data for this study. The request for responses was sent out to all 58 community colleges in the North Carolina Community College System, with multiple colleges not responding, or denying access. To protect participants from providing any identifiable data, the names of participating colleges was eliminated. Table 1 provides the reader with the demographic questions used for the research study.

Table 1: Demographic Questions

Question Number	Demographic Question
1	Which faculty type do you MOST identify with?
2	Which best describes the location of your institution?
3	What is your gender?
4	Which best represents your ethnic background?
5	Which best represents your highest level of education achieved?
6	How many years have you worked at your present institution?

Participants were asked to respond to the demographic section prior to completing the Q-sort. All 21 participants completed this section, with no invalid results occurring. Since the study specifically looks at faculty type as a determining factor when analyzing the data, it was important that participants distinguish themselves as either Academic/Transfer faculty or Career and Technical Education (CTE) faculty. The responses to this question determined that the majority of respondents were Academic/Transfer faculty with 71.4% (n=15) listing themselves as such. The remaining 28.6% (n=6) of faculty members listed CTE as their faculty type. Table 2 displays these results more in depth along with how these two groups fell into each factor for this study.

Table 2: Faculty Type by Factor

Faculty Type	Factor		Factor		Factor		Factor		Factor	
	1	%	2	%	3	%	4	%	5	%
Academic/Transfer Faculty	3	50	5	100	2	66.7	4	100	1	50
Career and Technical Education Faculty	3	50	0	0	1	33.3	0	0	1	50

Participants were also asked to determine their institutional location. This section had the most evenly distributed results. The most selected institutional location of respondents was from rural community colleges with 38.1% (n=8) of choosing this location. The urban location was the next highest selected institutional location with 33.3% (n=7) selecting this location. The final 28.6% (n=6) of respondents stated that their college was located in a suburban location. Table 3 provides how the factors were broken down by institutional location.

Table 3: Institution Type by Factor

Institution Type	Factor		Factor		Factor		Factor		Factor	
	1	%	2	%	3	%	4	%	5	%
Urban	2	33.3	2	40	1	33.3	1	25	0	0
Suburban	3	50	1	20	1	33.3	1	25	0	0
Rural	1	16.7	2	40	1	33.3	2	50	2	100

In regards to gender, 66.7% (n=14) of the respondents were male and 33.3% (n=7) of respondents were female. Table 4 provides a detailed breakdown of how the factors were broken down by the gender of the participants in the study.

Table 4: Gender distribution by Factor

Gender	Factor		Factor		Factor		Factor		Factor	
	1	%	2	%	3	%	4	%	5	%
Male	5	83.3	3	60	1	33.3	3	75	1	50
Female	1	16.7	2	40	2	66.7	1	25	1	50

The ethnicity of participants was broken down into five categories, with participants falling into three of the five categories. 81% (n=17) of the participants listed their ethnicity as Caucasian, with 14.3% (n=3) and 4.8% (n=1) selecting the African American/Black and the Other categories respectively. Due to the other categories having no respondents, they have been eliminated from the table. Table 5 shows the factor responses of the participants based on ethnicity.

Table 5: Ethnicity by Factor

Ethnicity	Factor		Factor		Factor		Factor		Factor	
	1	%	2	%	3	%	4	%	5	%
Caucasian	4	66.7	3	60	3	100	4	100	2	100
African American/Black	1	16.7	2	40	0	0	0	0	0	0
Other	1	16.7	0	0	0	0	0	0	0	0

When asked for their highest education level achieved, participants predominantly held Masters Degrees. 57.1% (n=12) listed this distinction, with 38.1% (n=8) listing their highest achieved level being a Doctorate. The final 4.8% (n=1) was listed as having an Associate's Degree. Table 6 displays the results of the factors based on the participants' education level. All other education levels were removed from the chart due to lack of responses.

Table 6: Education Level by Factor

Education Level	Factor 1		Factor 2		Factor 3		Factor 4		Factor 5	
	Count	%	Count	%	Count	%	Count	%	Count	%
Associates	0	0	0	0	1	33.3	0	0	0	0
Masters	3	50	4	80	2	66.7	0	0	2	100
Doctorate	3	50	1	20	0	0	4	100	0	0

The final aspect of the demographic study participants were asked to answer was the length of time they have been at their current institution. Two primary time frames stuck out from their answers, with 42.9% (n=9) of respondents indicating they have been at their current institution between 6-10 years, and 33.3% (n=7) indicating they have been at their current institution 0-5 years. The 11-15 years (19%, n=4) and 20+ years (4.8%, n=1) rounded out the remaining participants. Table 7 displays these results as they pertain to the five factor loadings with the 16-19 years option removed due to no responses.

Table 7: Years at current institution by Factor

Years Worked	Factor 1		Factor 2		Factor 3		Factor 4		Factor 5	
	1	%	2	%	3	%	4	%	5	%
0-5 years	1	16.7	1	40	2	66.7	1	25	2	100
6-10 years	1	16.7	3	60	1	33.3	3	75	0	0
11-15 years	3	50	1	20	0	0	0	0	0	0
20+ years	1	16.7	0	0	0	0	0	0	0	0

Statistical Process of Factor Analysis

Correlation between sorts. In Q analysis, the first step is calculating the correlation matrix. Bartlett and DeWeese (2015) note “the calculation of the correlation matrix is the first primary step in analyzing the Q-sorts” (p.79). This will represent the level of agreement and disagreement between the Q-sorts (van Exel & de Graaf, 2005). Table 8 represents the factor correlation matrix. This represents a more concise view of the groups that emerged in the study, as well as the level of agreement between factors.

Table 8: Correlation between factor z-scores

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
Factor 1	1.00	0.27	0.28	0.00	0.24
Factor 2	0.27	1.00	0.02	0.02	0.01
Factor 3	0.28	0.02	1.00	0.23	0.05
Factor 4	0.00	0.02	0.24	1.00	0.19
Factor 5	0.24	0.01	0.05	0.19	1.00

Values approaching +1.00 indicate that the agreement level is high, while those approaching a -1.00 indicate disagreement (Bartlett & DeWeese, 2015). Table 8 has generally low levels of agreement, which would indicate clear distinctions between the factors. The five-

factor solution helps highlights the varying perspectives that are a result of this study. Factors 1 and 3 had the highest level of agreement (.28), while Factors 1 and 4 have the lowest level of agreement (.00).

In regards to the correlation matrix, the highest correlation value was .86, which occurred as the result of the response of Participant 11. Participant 11 is female, Caucasian, academic/transfer faculty member who works at a rural community college. Participant 11 has a Master's Degree and has worked at their current community college for 0-5 years. Participant 11 loaded into Factor 3, which was labeled "Equity and Value Determine IE Outcomes." This individual felt that institutional effectiveness measures relating to student equity and value of community college were implemented well at their institution. The next highest correlation was .82. This was found when Participant 21 loaded into Factor 5. Factor 5 was labeled "Expectations of Institutional Effectiveness Outcomes." The statements that determined this label, all related to how institutional effectiveness information and training was disseminated to the faculty members. Participant 21 was a Career and Technical Education faculty member, who works at a rural institution. The participant is a Caucasian female with a Master's degree, and she has worked at her current institution for between 0-5 years.

The lowest correlation value was -.71, and by Participant 2. Participant 2 is a male Career and Technical Education at an urban institution. Participant 2 holds a Master's degree and listed their ethnicity as "other." The participant has been a member of their institution between 0-5 years. Participant 2 factored into Factor 5 (Faculty Development Outcomes). The next lowest factor was -.27, which was Participant 20. Participant 20 is an Academic/Transfer faculty member from a rural school. Participant 20 is a Caucasian male and holds a Master's degree. Participant 20 has been working at their current institution between 6 and 10 years.

Participant 20 loaded into Factor 2 (Administration Guided Institutional Effectiveness Outcomes).

Factor Analysis and Rotation

Factor analysis is the primary purpose of the Q-sort analysis and is the primary way to reduce the data into convenient patterns for analysis. Watts and Stenner (2012) state that the factor analysis “attempts to identify distinct regularities or *patterns of similarity* in the Q-sort configurations produced and hence in the viewpoints our participants have expressed” (p.98). The goal then becomes to narrow down the number of factors that characterize particular themes that were highlighted by the participants’ responses. Factor analysis is not an exact science (Wright, 2013), it is ultimately up to the researcher to examine the responses and settle on the number of factors that will be used in each particular Q-study. For this study R Statistical Analysis Software was used to analyze the participant’s responses. The eigenvalues (EV) “provide us with similar information to the communality, only this time in relation to each factor rather than each Q-sort” (Watts & Stenner, 2012, p. 104). EVs are traditionally used to determine which factors will be extracted and analyzed from a particular data set. Watts and Stenner (2012) point out that “EVs are probably the most commonly used criterion for making this decision and for deciding how many factors to retain in the final solution” (p.105). EVs are calculated by summing the squared loadings of all the Q-sorts in a particular factor (Watts & Stenner, 2012).

Table 9: Factor Solutions

Factors	Significant Loads	Variance Explained	Eigenvalue	Reliability	Highest Factor Correlation	Range of People on Factors
4	19	59.62	3.13	.89 to .97	0.33	2 to 7
5	20	65.81	2.76	.89 to .96	0.33	2 to 6
6	19	71.38	2.50	.8 to .97	0.45	1 to 7
7	16	76.32	2.29	.8 to .94	0.45	1 to 4

For this study, the analysis yielded a 5-factor solution with an EV of 2.76. 20 participants significantly loaded into a factor, which was the largest number of any Factor solution. In order to confirm the “correct” number of factors was chosen, a 6-factor and 7-factor solution was also run. With the 6-factor solution, only 1 person loaded into Factor 6 with an EV under 2.0. A 7-factor solution was also run, but the bottom three factors all had low EVs with Factor 5 and Factor 7 only having 1 participant significantly loaded into that Factor. The 5-factor solution was determined to be the best choice as it accounted for 66% of the variance represented among the participants. With EV, factor loadings, and percentage of variance all combined, the 5-factor solution represented the best overall approach. Table 10 provides a representation of the characteristics of the 5-factor solution.

Table 10: Factor Characteristics

Factor	Participants			SE of Factor	
	Loaded	Eigenvalues	Variance	Reliability	Scores
1	6	4.13	19.66	0.96	0.2
2	5	2.68	12.77	0.95	0.22
3	3	2.55	12.15	0.92	0.28
4	4	2.43	11.55	0.94	0.24
5	2	2.03	9.67	0.89	0.33
Total Variance			65.81		

An alternate method for factor selection involves examining a scree plot along with the raw data. Combining this with the evaluation of the correlation matrix, the researcher can better identify similarities and patterns from the data. In examining the elbow bend (Larsen & Warne, 2010) in Figure 10 a 6-factor solution could be acceptable, but when used in conjunction with the aforementioned analysis the results determine that a 5-factor solution would be the best choice for this study.

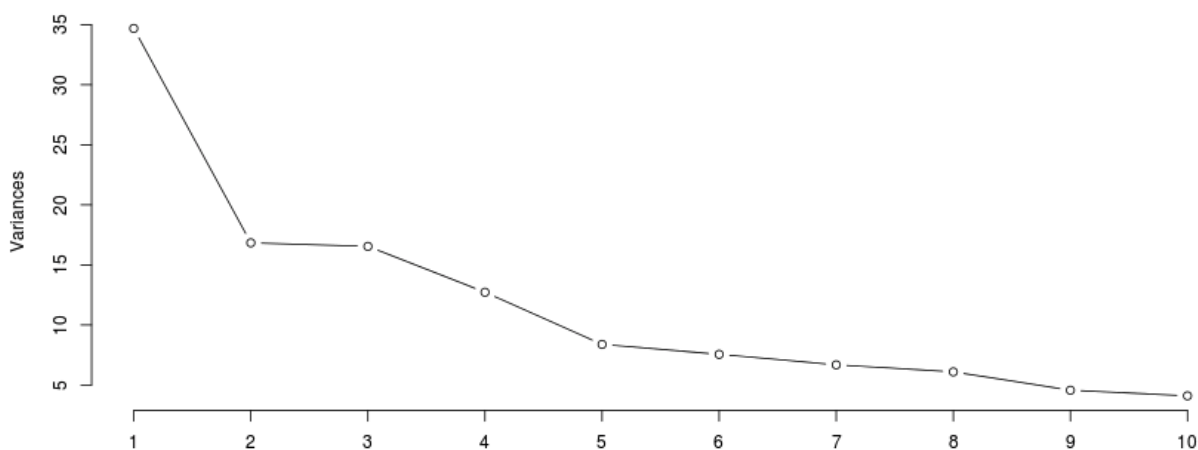


Figure 11: Scree plot representation of appropriate factor solution

A Varimax factor rotation was used to pinpoint the best explanation of the relationships between the individual Q-sorts (Watts & Stenner, 2012). The Varimax rotation typically notes “the majority viewpoints of the group” (Watts & Stenner, 2012, p. 125). A Varimax rotation was chosen over a by-hand rotation based on its ability to “guide you automatically to a very workable factor solution” (Watts & Stenner, 2012, p. 125). Since this study is looking at the majority of viewpoints of the group (Watts & Stenner, 2012), the Varimax rotation was decided upon over the by-hand rotation method.

Factor Loadings

“A factor loading is determined for each Q-sort, expressing the extent to which each Q-sort is associated with each factor” (van Exel & de Graaf, 2005, p. 8). Bartlett & DeWeese (2015) state that “performing factor analysis will unearth the relationships that exist between the individual sorters” (p.78). This allows the researcher to combine the information gained from each individual sorter, and look for trends among particular topics. Table 11 indicates which factors were flagged, or deemed significant.

Table 11: Flagged Factor Loadings

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
P1	FALSE	FALSE	TRUE	FALSE	TRUE
P2	FALSE	FALSE	FALSE	FALSE	FALSE
P3	TRUE	FALSE	FALSE	FALSE	FALSE
P4	FALSE	TRUE	FALSE	FALSE	FALSE
P5	TRUE	FALSE	FALSE	TRUE	FALSE
P6	FALSE	FALSE	FALSE	TRUE	FALSE
P7	FALSE	FALSE	FALSE	TRUE	FALSE
P8	FALSE	FALSE	FALSE	TRUE	FALSE
P9	FALSE	FALSE	FALSE	TRUE	FALSE
P10	FALSE	TRUE	FALSE	FALSE	FALSE
P11	FALSE	FALSE	TRUE	FALSE	FALSE
P12	TRUE	FALSE	FALSE	FALSE	FALSE
P13	TRUE	FALSE	FALSE	FALSE	FALSE
P14	TRUE	FALSE	FALSE	FALSE	FALSE
P15	FALSE	TRUE	FALSE	FALSE	FALSE
P16	TRUE	FALSE	FALSE	FALSE	FALSE
P17	FALSE	FALSE	TRUE	FALSE	FALSE
P18	FALSE	FALSE	FALSE	FALSE	FALSE
P19	FALSE	TRUE	FALSE	FALSE	FALSE
P20	FALSE	TRUE	FALSE	FALSE	FALSE
P21	FALSE	FALSE	FALSE	FALSE	TRUE

Table 12: Five Factor solution for faculty perceptions of institutional effectiveness practices and measures

	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
1	0.4340	0.1407	0.6080	0.0560	-0.2884
2	-0.0430	0.3956	0.1510	-0.0049	-0.7103
3	0.6880	0.1097	0.3570	0.0533	0.0375
4	0.1240	0.6671	0.1850	0.1593	-0.0372
5	0.8160	-0.0019	0.3550	-0.0598	0.0705
6	-0.1080	0.2528	-0.0120	0.7267	0.0034
7	0.4170	-0.1066	0.3130	0.5838	0.1631
8	-0.0530	-0.0421	0.0980	0.8405	-0.0754
9	-0.0510	0.0292	-0.0890	0.6867	0.4729
10	0.3180	0.7384	-0.2430	0.0310	-0.0541
11	-0.0670	-0.0467	0.8620	0.2402	0.0739
12	0.7760	0.2769	-0.1590	0.2416	0.0870
13	0.6830	-0.0307	0.4280	-0.1276	0.3187
14	0.7900	0.2142	-0.1410	-0.1821	0.2359
15	-0.0270	0.6035	0.0260	0.2732	-0.1406
16	0.5690	-0.0002	0.0250	-0.0461	-0.2028
17	0.4080	0.0413	0.5840	-0.1096	-0.0994
18	0.5320	0.0829	0.4780	0.0061	0.4237
19	0.0670	0.4596	0.3730	-0.0123	0.1302
20	0.0200	0.8240	-0.0550	-0.2656	0.1030
21	0.1170	0.1918	0.1180	0.1372	0.8531

The five factors that emerged after analysis were: Lack of Faculty Influence on Institutional Effectiveness, Negative Views of Administration Guiding IE Outcomes, Equity and Value Determine IE Outcomes, Internal Stakeholder Driven IE Outcomes, and Faculty Development Outcomes. Additional descriptions of each Factor were developed from

information gathered from distinguishing statements, the highest and lowest ranked items, and the participants' responses on the post sort questionnaire.

Factor Arrays

As part of the interpretation of factor scores, it is common to factor scores on a factor array. "Factor array is another term for a z score of a given Q statement and is comprised of all the scores given to that specific statement by each participant taking part in the study" (Bartlett & DeWeese, 2015, p. 79). These scores are represented by whole numbers similar to the ones used in the sorting process. This allows for an easier comparison of attributes of each group or factor (Bartlett & DeWeese, 2015). Bartlett and DeWeese (2012) continue by stating "Factor arrays allow the researcher to begin the process of data interpretation and theme development" (p.79-80). For this study the participants were asked to sort and rank their statements of institutional effectiveness measures and practices as seen at their institutions on a "Fully agree" (+5) to "Most Disagree" (-5) scale. Table 13 provides the visual data pertaining to this.

Table 13: Factor Arrays

Number	Statement	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
S1	The college's executive leadership plays a large role in determining which practices are used in assessing institutional effectiveness.	5	0	1	5	4
S2	Administration is the sole determining factor in regards to which IE practices and measures will be used.	4	-5	3	-1	-4
S3	Institutional effectiveness measures are discussed at length by administration	3	-2	0	3	5
S4	Successful student outcomes are clearly defined by administration	-2	-3	0	0	-2
S5	The expectations for institutional effectiveness measures and practices are clearly defined by executive leadership	-2	-4	-1	0	3
S6	Uniting multiple areas of the college to contribute to the implementation of institutional effectiveness measures and practices is completed by executive administration.	-3	0	-3	1	-3
S7	Outside donors (businesses, city or county officials, or individuals) have a large influence on which IE practices and measures are used.	1	-3	2	-4	-5
S8	The perspective of external stakeholders (business, the community, etc.) is considered when evaluating institutional effectiveness	2	4	0	-2	1
S9	Meeting labor market demands is an important institutional effectiveness practice	2	2	3	-1	3
S10	Faculty plays a large role in determining which practices and measures are developed and used	-5	2	-2	1	-3

Table 13: continued

S11	IE measures and practices are rolled out in an effective manner that allows faculty and staff ample time to adjust to the changes	-4	-4	-3	2	3
S12	Creating faculty buy-in is important for successful IE practices and measures	-2	4	-4	4	-2
S13	Concern for faculty member's wellbeing (mentally and physically) is important when determining institutional effectiveness measures and practices	-3	-3	-2	0	-4
S14	Faculty training is an important factor when creating institutional effectiveness practices and measures	-1	-2	-2	2	-2
S15	Faculty is provided information and training for creating effective and ineffective practices and measures	-3	-2	0	-2	3
S16	Faculty morale about institutional effectiveness measures and practices is considered when creating institutional effectiveness measures and practices.	-4	-3	-5	-3	-3
S17	Employer assessment of student performance is an important factor when choosing IE practices and measures	0	5	0	-5	0
S18	Workforce placement rates are an important when developing institutional effectiveness practices and measures	3	2	-4	-2	2
S19	Transfer rates influence which IE practices and measures are implemented.	2	3	-2	-2	0
S20	Creating and developing successful student outcomes are key factors when determining which IE practices and measures are used	3	3	-3	1	-2

Table 13: continued

S21	Student persistence (fall to fall) is an important factor when choosing IE practices and measures	3	-1	1	1	-2
S22	Student goal attainment (i.e. Transferring before graduation, getting a job, etc.) an important factor when developing IE practices and measures.	0	1	1	3	2
S23	Degree completion rates are important measures of institutional effectiveness measures and practices	4	1	-1	-3	1
S24	Transfer rates are an important measure of institutional effectiveness	1	1	-2	-4	1
S25	The performance of recently transferred community college students at four year colleges is an important measure of institutional effectiveness	-2	1	1	0	0
S26	Program completion success rates are readily available and are important when determining institutional effectiveness practices and measures.	1	0	-1	-1	1
S27	Timely completion of a program is an important measure of institutional effectiveness measures and practices.	1	0	0	-2	0
S28	Student access to classes and outside opportunities for success are important factors when choosing IE practices and measures.	0	-2	1	-3	-2
S29	Successful advising is an important measure of institutional effectiveness	0	3	4	2	-1
S30	Equity for all students is an important factor when choosing IE practices and measures	1	3	5	3	0
S31	Student satisfaction with the college is an important factor when choosing IE practices and measures.	-1	1	2	0	-3

Table 13: continued

S32	Value to the students is important when determining which institutional effectiveness practices and measures will be used.	0	-1	3	0	-1
S33	Ongoing evaluation and assessment of current practices and measures is important for effective institutional effectiveness practices and measures	0	0	4	4	1
S34	Highlighting ineffective practices and amending them is important.	-2	-2	3	3	4
S35	Program learning outcomes are important to assessing institutional effectiveness measures and practices	-1	0	2	1	0
S36	Multiple areas of the institution (faculty, administration, workforce development, etc.) work together to create effective institutional practices and measures.	-3	-1	-3	-3	1

Consensus Statements

“A statement that is not distinguishing between any of the identified factors is called a consensus statement” (van Exel & de Graaf, 2005, p. 10). In other words, the responses on the statements were ranked so closely that a pattern of agreement between the respondents is accepted. Within this study no consensus statements emerged among the factor groups. Any consensus statements would help address the second research question posed in Chapter 1 (What items are similar between the viewpoints?), which focused on which perspectives were shared by the participants.

No consensus statements were found between the Five Factor groupings. This would indicate that none of the groups fully agreed with any of the statements completely. However, through analysis of the factor arrays, some statements garnered similar perceptions among the

factor groups. S25, “The performance of recently transferred community college students at four year colleges is an important measure of institutional effectiveness,” S26, “Program completion success rates are readily available and are important when determining institutional effectiveness practices and measures,” and S27, “Timely completion of a program is an important measure of institutional effectiveness measures and practices,” all had “neutral” perceptions overall when ranked by factor. S16, “Faculty morale about institutional effectiveness measures and practices is considered when creating institutional effectiveness measures and practices,” also had similar views attached to it, all being viewed as negative. These four statements were the closest statements to becoming consensus statements, however these statements were not fully agreed upon which led them to not being classified as a consensus statement. Given that so many statements possessed a wide variety of perceptions from the factor groups, the similarities in these four statements was found to be relevant to the overall perceptions towards IE practices and measures. From the results, it can be determined that the participants believe that ongoing evaluation and assessment of practices does have value in the development of successful institutional effectiveness outcomes at their institutions, along with the consideration for faculty morale being mostly overlooked at their host institutions.

Distinguishing Statements

Distinguishing statements are usually determined based on a ranking scale, for example if one factor ranks as -3 and another +3 for the same statement, it is considered to be a distinguishing statement (Bartlett & DeWeese, 2015). Factors are judged by their difference score. “The difference score is the magnitude of difference between a statement’s score on any two factors that it is required for it to be statistically significant” (van Exel & de Graaf, 2005, p. 9). In short, if the two factor’s statement scores exceed the difference score, it is considered to

be a distinguishing statement (van Exel & de Graaf, 2005). The distinguishing statements for this study were used to describe and define the Factors that emerged from the data analysis.

Findings by Factor Group

Factor One: Lack of Faculty Influence on Institutional Effectiveness. Factor 1 had 6 participants and accounted for 19.6% of the variance. 30% of the P set loaded into Factor 1. Factor 1 accounts for the largest number of participants between the five Factors. The name for Factor One was derived from the statements relating to role faculty plays in the development of institutional effectiveness outcomes at their institution. One statement directly relates with faculty's role in the development of institutional effectiveness practices and measures, while the other statement relates based on implication that faculty involvement with students directly affects degree completion rates. S10, "Faculty plays a large role in determining which practices and measures are developed and used" would be a characteristic of this Factor.

Table 14 provides the distinguishing statements for this factor. The participants that grouped into this factor strongly believe that faculty does not play a large role in the development of institutional effectiveness practices and measures at their institution. Factors 2, 3, and 4 show more neutral feelings towards faculty's role in IE decisions, while Factor 5 also disagreed that faculty played a role in decision making. Factor 1 generally viewed degree completion rates effect on IE practices and measures positively. Factors 2, 3, and 5 hold a neutral view of this statement, while Factor 4 disagreed with degree completion rates dictating IE practices and measures.

Table 14: Distinguishing Statements for Factor One

Number	Statement	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
S10	Faculty plays a large role in determining which practices and measures are developed and used	-5	2	-2	1	-3
S23	Degree completion rates are important measures of institutional effectiveness measures and practices	4	1	-1	-3	1

An examination of the post sort questionnaire highlighted some participants' feelings towards faculty's ability to influence IE decisions. One participant described their perception of their institutions practices involving faculty as almost nonexistent, stating "there is little to no consideration of faculty when enacting and implementing many of the policies." Another participant noted "the lack of faculty input and consideration when making and implementing IE practices" at their institution. Both of these comments point directly towards the overall negative feelings faculty members felt towards S10. When examining the highest and lowest ranked items for the members of this group, many held the view that administration was the predominant decision maker when IE practices and measures were decided. S10 was the lowest ranked item for this group, while S1 was the highest ranked item. This created consistency overall as S10 states faculty is not asked for input, while S1 is based around the administration being a large factor in determining IE practices and measures.

Table 15: Highest and lowest ranked items for Factor One

Rank	Number	Statement
(Highest) 5	S1	The college's executive leadership plays a large role in determining which practices are used in assessing institutional effectiveness.
4	S2	Administration is the sole determining factor in regards to which IE practices and measures will be used.
4	S23	Degree completion rates are important measures of institutional effectiveness measures and practices
(Lowest) -5	S10	Faculty plays a large role in determining which practices and measures are developed and used
-4	S11	IE measures and practices are rolled out in an effective manner that allows faculty and staff ample time to adjust to the changes Faculty morale about institutional effectiveness measures and
-4	S16	practices is considered when creating institutional effectiveness measures and practices.

Generally speaking, Factor 1 deals primarily with participants views on Lack of Faculty Influence on Institutional Effectiveness. The participants agreed that faculty rarely has a say in the development of IE practices and measures, while indicating degree completion rates also have an effect on the practices and measures chosen. Figure 12 provides a Q-sort model for Factor 1. This will provide a visual representation of the average response for participants flagged in Factor 1.

Most Disagree										Fully agree
-5	-4	-3	-2	-1	0	1	2	3	4	5
Faculty plays a large role in determining which practices and measures are developed and used	IE measures and practices are rolled out in an effective manner that allows faculty and staff ample time to adjust to the changes	Uniting multiple areas of the college to contribute to the implementation of institutional effectiveness measures and practices is completed by executive administration	Successful student outcomes are clearly defined by administration	Faculty training is an important factor when creating institutional effectiveness practices and measures	Employer assessment of student performance is an important factor when choosing IE practices and measures	Outside donors (businesses, city or county officials, or individuals) have a large influence on which IE practices and measures are used	The perspective of external stakeholders (business, the community, etc.) is considered when evaluating institutional effectiveness	Institutional effectiveness measures are discussed at length by administration.	Administration is the sole determining factor in regards to which IE practices and measures will be used.	The college's executive leadership plays a large role in determining which practices are used in assessing institutional effectiveness.
	Faculty morale about institutional effectiveness measures and practices is considered when creating institutional effectiveness measures and practices.	Concern for faculty member's wellbeing (mentally and physically) is important when determining institutional effectiveness measures and practices	The expectations for institutional effectiveness measures and practices are clearly defined by executive leadership	Student satisfaction with the college is an important factor when choosing IE practices and measures	Student goal attainment (i.e. Transferring before graduation, getting a job, etc.) an important factor when developing IE practices and measures	Transfer rates are an important measure of institutional effectiveness	Meeting labor market demands is an important institutional effectiveness practice	Workforce placement rates are an important when developing institutional effectiveness practices and measures	Student goal attainment (i.e. Transferring before graduation, getting a job, etc.) an important factor when developing IE practices and measures.	
	Faculty is provided information and training for creating effective and ineffective practices and measures	Creating faculty buy-in is important for successful IE practices and measures	Program learning outcomes are important to assessing institutional effectiveness measures and practices	Student access to classes and outside opportunities for success are important factors when choosing IE practices and measures.	Program completion success rates are readily available and are important when determining institutional effectiveness practices and measures.	Transfer rates influence which IE practices and measures are implemented.	Creating and developing successful student outcomes are key factors when determining which IE practices and measures are used.	Degree completion rates are important measures of institutional effectiveness measures and practices		
	Multiple areas of the institution (faculty, administration, workforce development, etc) work together to create effective institutional practices and measures.	The performance of recently transferred community college students at four year colleges is an important measure of institutional effectiveness	Highlighting ineffective practices and amending them is important	Successful advising is an important measure of institutional effectiveness	Value to the students is important when determining which institutional effectiveness practices and measures will be used.	Equity for all students is an important factor when choosing IE practices and measures		Student persistence (fall to fall) is an important factor when choosing IE practices and measures		
					Ongoing evaluation and assessment of current practices and measures is important for effective institutional effectiveness practices and measures					

Figure 22: Model sort for Factor One- Lack of Faculty Influence on Institutional Effectiveness

Note: Distinguishing items are highlighted in red

In terms of Faculty type that loaded into Factor 1, five members were academic/transfer faculty and one was a career and technical education faculty member.

Factor Two: Negative Views of Administration Guiding IE Outcomes. Factor 2 had five participants, which accounted for 25% of the P set that loaded into a factor. It also accounted for 12.8% of the total variance of the study. All members that loaded into this Factor were Academic/Transfer Faculty members. Factor 2 was titled “Negative Views of Administration Guided Institutional Effectiveness Outcomes” because this characterizes the perspectives of the participants that loaded into this Factor. Four of the five distinguishing statements related directly to the role administration plays in determining and applying institutional effectiveness measures and practices (S4, S5, S6, and S11).

Table 16 provides the distinguishing statements for this factor. Factor 2 indicates that administration generally does a poor job in regards to outlining their expectations for IE, as well as poorly implementing of IE practices and measures throughout their institutions. When applying the results of the post sort questionnaire, multiple responses related directly to S6. One participant in this group commented, “I feel the administration does not value input from other areas on campus, and is running the college more as a business.” Another stated, “Effective IE development and assessment must be collaborative efforts that incorporates all constituencies at the college.” Both of these indicate faculty member’s belief that they play some role in the development of IE practices and measures. This group did, however, believe that employer assessment of student performance was a determining factor in decisions on IE at their institutions. The participants who flagged for this factor were the only group to list this statement above a neutral rating.

Table 16: Distinguishing Statements for Factor Two

Number	Statement	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
	Successful student outcomes					
S4	are clearly defined by administration	-2	-3	0	0	-2
S5	The expectations for institutional effectiveness measures and practices are clearly defined by executive leadership	-2	-4	-1	0	3
S6	Uniting multiple areas of the college to contribute to the implementation of institutional effectiveness measures and practices is completed by executive administration.	-3	0	-3	1	-3
S11	IE measures and practices are rolled out in an effective manner that allows faculty and staff ample time to adjust to the changes	-4	-4	-3	2	3
S17	Employer assessment of student performance is an important factor when choosing IE practices and measures	0	5	0	-5	0

The highest ranked statement in this Factor was S17, which determined that all participants felt that the employer assessment of student performance was important when determining IE practices and measures. S17 was the highest ranked item for participants that loaded into Factor 2. This was backed up with strong feelings towards creating buy in and

external stakeholders having a role in determining IE practices and measures at the participants' institutions. Strong negative feelings were held towards the other four statements with S4 receiving the lowest score. S6 received a neutral score from participants. Table 17 provides the highest and lowest ranked concourse items for Factor 2. The highest ranked was S17, while S4, S5, S6 all ranked on the low end of the spectrum. S11 was viewed as neutral based on the responses from the participants that loaded into Factor 2. The lowest ranked item overall for Factor 2 was S2, which shows that they did not agree that administration was the sole determining factor at their institution. This was interesting when examined with the other results, as participants have stated they don't believe clear expectations or inclusiveness is particularly valued at their colleges.

Table 17: High and lowest ranked items for Factor Two

Rank	Number	Statement
(Highest) 5	S17	Employer assessment of student performance is an important factor when choosing IE practices and measures.
4	S12	Creating faculty buy-in is important for successful IE practices and measures
4	S8	The perspective of external stakeholders (business, the community, etc.) is considered when evaluating institutional effectiveness
(Lowest) - 5	S2	Administration is the sole determining factor in regards to which IE practices and measures will be used.
-4	S5	The expectations for institutional effectiveness measures and practices are clearly defined by executive leadership
-4	S11	IE measures and practices are rolled out in an effective manner that allows faculty and staff ample time to adjust to the changes

Figure 13 provides a model sort for Factor 2. This summarizes the perspectives held by group members, and characterizes their overall beliefs about Negative Views of Administration Guiding IE Outcomes.

Most Disagree										Fully agree
-5	-4	-3	-2	-1	0	1	2	3	4	5
Administration is the sole determining factor in regards to which IE practices and measures will be used.	The expectations for institutional effectiveness measures and practices are clearly defined by executive leadership	Successful student outcomes are clearly defined by administration	Institutional effectiveness measures are discussed at length by administration.	Student persistence (fall to fall) is an important factor when choosing IE practices and measures	The college's executive leadership plays a large role in determining which practices are used in assessing institutional effectiveness.	Student goal attainment (i.e. Transferring before graduation, getting a job, etc.) an important factor when developing IE practices and measures	Meeting labor market demands is an important institutional effectiveness practice	Transfer rates influence which IE practices and measures are implemented.	The perspective of external stakeholders (business, the community, etc.) is considered when evaluating institutional effectiveness	Employer assessment of student performance is an important factor when choosing IE practices and measures
	IE measures and practices are rolled out in an effective manner that allows faculty and staff ample time to adjust to the changes	Outside donors (businesses, city or county officials, or individuals) have a large influence on which IE practices and measures are used	Faculty training is an important factor when creating institutional effectiveness practices and measures	Value to the students is important when determining which institutional effectiveness practices and measures will be used.	Uniting multiple areas of the college to contribute to the implementation of institutional effectiveness measures and practices is completed by executive administration	Degree completion rates are important measures of institutional effectiveness measures and practices	Faculty plays a large role in determining which practices and measures are developed and used	Creating and developing successful student outcomes are key factors when determining which IE practices and measures are used.	Creating faculty buy-in is important for successful IE practices and measures	
		Concern for faculty member's wellbeing (mentally and physically) is important when determining institutional effectiveness measures and practices	Faculty is provided information and training for creating effective and ineffective practices and measures	Multiple areas of the institution (faculty, administration, workforce development, etc) work together to create effective institutional practices and measures.	Program completion success rates are readily available and are important when determining institutional effectiveness practices and measures.	Transfer rates are an important measure of institutional effectiveness	Workforce placement rates are an important when developing institutional effectiveness practices and measures	Successful advising is an important measure of institutional effectiveness		
		Faculty morale about institutional effectiveness measures and practices is considered when creating institutional effectiveness measures and practices.	Student access to classes and outside opportunities for success are important factors when choosing IE practices and measures.		Timely completion of a program is an important measure of institutional effectiveness measures and practices.	The performance of recently transferred community college students at four year colleges is an important measure of institutional effectiveness		Equity for all students is an important factor when choosing IE practices and measures		
			Highlighting ineffective practices and amending them is important		Ongoing evaluation and assessment of current practices and measures is important for effective institutional effectiveness practices and measures	Student satisfaction with the college is an important factor when choosing IE practices and measures				
					Program learning outcomes are important to assessing institutional effectiveness measures and practices					

Figure 33: Model sort for Factor Two- Negative Views of Administration Guiding IE Outcomes

Note: Distinguishing items are highlighted in red

Participants for Factor 2 were all listed as academic/transfer faculty.

Factor 3: Equity and Value Determine IE Outcomes. Factor 3 had three participants and accounted for 12.2% of the variance. It contained 15% of the P set that loaded into a factor. This Factor was named based on the distinguishing statements and the coinciding responses from participants about the statements. One example is the highest ranking concourse item (S30), which dealt directly with faculty's perception of equity for their students when choosing IE measures and practices. Through examining the distinguishing statements, most members of this group rated equity and value as their two highest ranking items when relating it to particular measures or practices being chosen.

Table 18 identifies the distinguishing statements for Factor 3. Participants in Factor 3 did not feel transfer rates were an important measure of institutional effectiveness. Of the 5 Factors, only Factor 3 and Factor 4 ranked S24 negatively. Factors 1, 2, and 5 provided it with a neutral ranking as it pertains to the development of institutional effectiveness practices and measures. Participants who loaded into Factor 3 also ranked value to students (S32) as an important factor when creating IE practices and measures. Student access to classes and outside opportunities garnered a neutral ranking for those that loaded into this Factor.

Table 18: Distinguishing statements for Factor Three

Number	Statement	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
S24	Transfer rates are an important measure of institutional effectiveness	1	1	-2	-4	1
S28	Student access to classes and outside opportunities for success are important factors when choosing IE practices and measures.	0	-2	1	-3	-2
S30	Equity for all students is an important factor when choosing IE practices and measures	1	3	5	3	0
S32	Value to the students is important when determining which institutional effectiveness practices and measures will be used.	0	-1	3	0	-1

Table 19 provides the highest and lowest ranked concourse items for Factor 3, “Equity and Value Determine IE Outcomes.” The highest ranked item (S30) indicates that equity for students should be a determining factor when deciding on IE practices and measures. One respondent stated, “Equality for all! Students need an equal chance” was the most important item to them on the post sort questionnaire. Another replied that “student value” was the most important concourse item on the questionnaire. The lowest ranked item overall for this group related to faculty morale being considered when developing IE practices and measures. This indicates that faculty morale is not considered when developing IE practices and measures. One

participant went on to say, “Administration works with blinders on to the realities that students and faculty face.”

Table 19: Highest and lowest ranked items for Factor Three

Rank	Number	Statement
(Highest) 5	S30	Equity for all students is an important factor when choosing IE practices and measures
4	S29	Successful advising is an important measure of institutional effectiveness
4	S33	Ongoing evaluation and assessment of current practices and measures is important for effective institutional effectiveness practices and measures
(Lowest) -5	S16	Faculty morale about institutional effectiveness measures and practices is considered when creating institutional effectiveness measures and practices
-4	S12	Creating faculty buy-in is important for successful IE practices and measures
-4	S18	Workforce placement rates are an important when developing institutional effectiveness practices and measures

Figure 14 provides a model sort for Factor 3. The model represents the average ranking score for each concourse item.

Most Disagree										Fully agree
-5	-4	-3	-2	-1	0	1	2	3	4	5
Faculty morale about institutional effectiveness measures and practices is considered when creating institutional effectiveness measures and practices.	Creating faculty buy-in is important for successful IE practices and measures	Uniting multiple areas of the college to contribute to the implementation of institutional effectiveness measures and practices is completed by executive administration	Faculty plays a large role in determining which practices and measures are developed and used	The expectations for institutional effectiveness measures and practices are clearly defined by executive leadership	Institutional effectiveness measures are discussed at length by administration.	The college's executive leadership plays a large role in determining which practices are used in assessing institutional effectiveness.	Outside donors (businesses, city or county officials, or individuals) have a large influence on which IE practices and measures are used	Administration is the sole determining factor in regards to which IE practices and measures will be used.	Successful advising is an important measure of institutional effectiveness	Equity for all students is an important factor when choosing IE practices and measures
	Workforce placement rates are an important when developing institutional effectiveness practices and measures	IE measures and practices are rolled out in an effective manner that allows faculty and staff ample time to adjust to the changes	Concern for faculty member's wellbeing (mentally and physically) is important when determining institutional effectiveness measures and practices	Student goal attainment (i.e. Transferring before graduation, getting a job, etc.) an important factor when developing IE practices and measures.	Successful student outcomes are clearly defined by administration	Student persistence (fall to fall) is an important factor when choosing IE practices and measures	Student satisfaction with the college is an important factor when choosing IE practices and measures	Meeting labor market demands is an important institutional effectiveness practice	Ongoing evaluation and assessment of current practices and measures is important for effective institutional effectiveness practices and measures	
		Creating and developing successful student outcomes are key factors when determining which IE practices and measures are used.	Faculty training is an important factor when creating institutional effectiveness practices and measures	Degree completion rates are important measures of institutional effectiveness measures and practices	The perspective of external stakeholders (business, the community, etc.) is considered when evaluating institutional effectiveness	Student goal attainment (i.e. Transferring before graduation, getting a job, etc.) an important factor when developing IE practices and measures	Program learning outcomes are important to assessing institutional effectiveness measures and practices	Value to the students is important when determining which institutional effectiveness practices and measures will be used.		
		Multiple areas of the institution (faculty, administration, workforce development, etc) work together to create effective institutional practices and measures.	Transfer rates influence which IE practices and measures are implemented.	Program completion success rates are readily available and are important when determining institutional effectiveness practices and measures.	Faculty is provided information and training for creating effective and ineffective practices and measures	The performance of recently transferred community college students at four year colleges is an important measure of institutional effectiveness		Highlighting ineffective practices and amending them is important		
			Transfer rates are an important measure of institutional effectiveness		Employer assessment of student performance is an important factor when choosing IE practices and measures	Student access to classes and outside opportunities for success are important factors when choosing IE practices and measures.				
					Timely completion of a program is an important measure of institutional effectiveness measures and practices.					

Figure 44: Model sort for Factor Three- Equity and Value Determine IE Outcomes

Note: Distinguishing items are highlighted in red

The participants who loaded into this Factor are mostly academic/transfer faculty (two out of three).

Factor 4: Internal Stakeholder Driven IE Outcomes. Factor 4 had four participants, which accounted for 20% of the P set and for 11.6% of the variance for the study. This factors' name was derived from this groups' general views on the role the college should play in the IE process. This group was also made up of Academic/Transfer Faculty members only. Many of the highest responses related to statements that focused around the internal stakeholders influencing in the decision making process. The highest ranked item was S1, which states "The college's executive leadership plays a large role in determining which practices are used in assessing institutional effectiveness," however other high responses related to faculty training (S12) and creating Equity for students (S33).

Table 20 provides the distinguishing statements for Factor 4. The participants that flagged for this group tended to hold negative views towards outside donors and other outside factors determining IE practices and measures. The lowest ranked item for this group was S17, which related to employer assessment of student performance being an important factor in IE decisions. This group also held negative views of outside donors' influences (S7), and Transfer rates (S24) influencing IE practices and measures. Those who loaded into this Factor agreed more with administration role in decisions making (S1), as well as creating faculty buy in (S12) and ongoing evaluation of current IE practices (S33) as being important to them. In terms of the statements flagged for Factor 4, the members of this group generally held neutral views towards those statements but held negative views towards outside groups having an influence of IE practices and measures.

Table 20: Distinguishing Statements for Factor Four

Number	Statement	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
S2	Administration is the sole determining factor in regards to which IE practices and measures will be used.	4	-5	3	-1	-4
S6	Uniting multiple areas of the college to contribute to the implementation of institutional effectiveness measures and practices is completed by executive administration.	-3	0	-3	1	-3
S9	Meeting labor market demands is an important institutional effectiveness practice	2	2	3	-1	3
S13	Concern for faculty member's wellbeing (mentally and physically) is important when determining institutional effectiveness measures and practices	-3	-3	-2	0	-4
S14	Faculty training is an important factor when creating institutional effectiveness practices and measures	-1	-2	-2	2	-2
S17	Employer assessment of student performance is an important factor when choosing IE practices and measures	0	5	0	-5	0
S24	Transfer rates are an important measure of institutional effectiveness	1	1	-2	-4	1

Table 21 provides the information relating to the highest and lowest ranked items for Factor 4. The highest ranked items for this Factor (S1, S12, S33) indicates that internal stakeholders should be the decision makers as it relates to institutional effectiveness practices and measures. However, the lowest ranked items (S17, S24, and S7) drive home the idea that external factors should not play a role in determining practices and measures. When analyzing the scores across the board, this group indicates internal evaluation of IE practices and measures by internal stakeholders is most important to them. Interestingly, faculty wellbeing was only ranked as neutral by this group (S13), but compared to the other four Factors this group ranked this item the highest.

Table 21: Highest and lowest ranked items for Factor Four

Rank	Number	Statement
(Highest) 5	S1	The college's executive leadership plays a large role in determining which practices are used in assessing institutional effectiveness.
4	S12	Creating faculty buy-in is important for successful IE practices and measures
4	S33	Ongoing evaluation and assessment of current practices and measures is important for effective institutional effectiveness practices and measures
(Lowest) -5	S17	Employer assessment of student performance is an important factor when choosing IE practices and measures
-4	S7	Outside donors (businesses, city or county officials, or individuals) have a large influence on which IE practices and measures are used.
-4	S24	Transfer rates are an important measure of institutional effectiveness

Figure 15 provides a model sort for Factor 4. The model represents the average ranking score for each item.

Most Disagree										Fully agree
-5	-4	-3	-2	-1	0	1	2	3	4	5
Employer assessment of student performance is an important factor when choosing IE practices and measures	Outside donors (businesses, city or county officials, or individuals) have a large influence on which IE practices and measures are used	Faculty morale about institutional effectiveness measures and practices is considered when creating institutional effectiveness measures and practices.	The perspective of external stakeholders (business, the community, etc.) is considered when evaluating institutional effectiveness	Administration is the sole determining factor in regards to which IE practices and measures will be used.	Successful student outcomes are clearly defined by administration	Uniting multiple areas of the college to contribute to the implementation of institutional effectiveness measures and practices is completed by executive administration	IE measures and practices are rolled out in an effective manner that allows faculty and staff ample time to adjust to the changes	Institutional effectiveness measures are discussed at length by administration.	Creating faculty buy-in is important for successful IE practices and measures	The college's executive leadership plays a large role in determining which practices are used in assessing institutional effectiveness.
	Transfer rates are an important measure of institutional effectiveness	Student goal attainment (i.e. Transferring before graduation, getting a job, etc.) an important factor when developing IE practices and measures.	Faculty is provided information and training for creating effective and ineffective practices and measures	Meeting labor market demands is an important institutional effectiveness practice	The expectations for institutional effectiveness measures and practices are clearly defined by executive leadership	Faculty plays a large role in determining which practices and measures are developed and used	Faculty training is an important factor when creating institutional effectiveness practices and measures	Student goal attainment (i.e. Transferring before graduation, getting a job, etc.) an important factor when developing IE practices and measures	Ongoing evaluation and assessment of current practices and measures is important for effective institutional effectiveness practices and measures	
	Degree completion rates are important measures of institutional effectiveness measures and practices	Workforce placement rates are an important when developing institutional effectiveness practices and measures	Program completion success rates are readily available and are important when determining institutional effectiveness practices and measures.	Concern for faculty member's wellbeing (mentally and physically) is important when determining institutional effectiveness measures and practices	Creating and developing successful student outcomes are key factors when determining which IE practices and measures are used.	Successful advising is an important measure of institutional effectiveness	Equity for all students is an important factor when choosing IE practices and measures			
	Student access to classes and outside opportunities for success are important factors when choosing IE practices and measures.	Transfer rates influence which IE practices and measures are implemented.		The performance of recently transferred community college students at four year colleges is an important measure of institutional effectiveness	Student persistence (fall to fall) is an important factor when choosing IE practices and measures	Highlighting ineffective practices and amending them is important				
	Multiple areas of the institution (faculty, administration, workforce development, etc) work together to create effective institutional practices and measures.	Timely completion of a program is an important measure of institutional effectiveness measures and practices.		Student satisfaction with the college is an important factor when choosing IE practices and measures	Program learning outcomes are important to assessing institutional effectiveness measures and practices					
				Value to the students is important when determining which institutional effectiveness practices and measures will be used.						

Figure 55: Model sort for Factor Four- Internal Stakeholder Driven IE Outcomes

Note: Distinguishing items are highlighted in red; consensus items are highlighted in green

All participants that loaded for this Factor were Academic/Transfer faculty members.

Factor Five: Faculty Development Outcomes. Factor Five had two participants' flag for this Factor, which represented 10% of the P set and 9.7% of the variance for this study. This Factor derived its name from highest ranking items. Most of the highest ranking items all relate to effective communication of the expectations of IE practices and measures at their institutions. For example, the highest ranking item for this group was S3, which states "Institutional effectiveness measures are discussed at length by administration." S5, "the expectations for institutional effectiveness practices and measures are clearly defined," is a defining statement for this Factor and directly relates to the title.

Table 22 provides the distinguishing statements for Factor 5. The participants who loaded into this factor agree that clear expectations of institutional effectiveness practices and measures are important to them (S3, S15, S11). They also indicate that they do not believe outside donors (S7) or administration (S2) are big influencers on IE practices and measures. For S5, "The expectations for institutional effectiveness measures and practices are clearly defined by executive leadership," and S15, "Faculty is provided information and training for creating effective and ineffective practices and measures," participants flagged for this Factor indicated strong support for these at their institution. They held a neutral view of the final defining statement, S30 "Equity for all students is an important factor when choosing IE practices and measures." This group also ranked the concern for faculty wellbeing as being important in determining IE practices and measures (S13).

Table 22: Defining statements for Factor Five

Number	Statement	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
S5	The expectations for institutional effectiveness measures and practices are clearly defined by executive leadership	-2	-4	-1	0	3
S15	Faculty is provided information and training for creating effective and ineffective practices and measures	-3	-2	0	-2	3
S30	Equity for all students is an important factor when choosing IE practices and measures	1	3	5	3	0

Table 23 holds the results for the highest and the lowest ranked items for the participants who loaded into this Factor. Two of the highest ranking items for this group (S3 and S34) both related to continual communication indicating expectations and evaluation of current IE practices and measures. Two more highly ranked items (S11 and S15) confirm this as they were based around training and application of the new IE practices at their institution. One of the highest ranking items (S1) does seem to go against some of the other statements by suggesting that administration plays a large role in decision making, but a low ranked item (S2) provides a little more insight by indicating that administration is not “the sole determining factor.” One member stated why they felt administration was so important to the process was, “Because they (executive admin) set the tone/direction for the entire college.”

The lowest ranked items for this group indicates that outside donors do not have an influence on IE decisions (S7), and they don't believe faculty wellbeing should be considered when making IE practices and measures (S13). The low statement ranking was also backed up by another low ranked item, (S16) which states faculty morale should be considered when making IE decisions. This group also indicated that student satisfaction with the institution (S31) was not a particularly important measure either. Overall their perceptions of the concern for morale and wellbeing for two primary internal stakeholder groups were low.

Table 23: Highest and lowest ranked items for Factor Five

Rank	Number	Statement
(Highest)		
5	S3	Institutional effectiveness measures are discussed at length by administration.
4	S1	The college's executive leadership plays a large role in determining which practices are used in assessing institutional effectiveness.
4	S34	Highlighting ineffective practices and amending them is important.
(Lowest) -		
5	S7	Outside donors (businesses, city or county officials, or individuals) have a large influence on which IE practices and measures are used.
-4	S2	Administration is the sole determining factor in regards to which IE practices and measures will be used.
-4	S13	Concern for faculty member's wellbeing (mentally and physically) is important when determining institutional effectiveness measures and practices

Figure 16 displays the model Q-sort for Factor 5. The model represents the average ranking for each item.

Most Disagree						Fully agree				
-5	-4	-3	-2	-1	0	1	2	3	4	5
Outside donors (businesses, city or county officials, or individuals) have a large influence on which IE practices and measures are used	Administration is the sole determining factor in regards to which IE practices and measures will be used.	Uniting multiple areas of the college to contribute to the implementation of institutional effectiveness measures and practices is completed by executive administration	Successful student outcomes are clearly defined by administration	Successful advising is an important measure of institutional effectiveness	Employer assessment of student performance is an important factor when choosing IE practices and measures	The perspective of external stakeholders (business, the community, etc.) is considered when evaluating institutional effectiveness	Workforce placement rates are an important when developing institutional effectiveness practices and measures	The expectations for institutional effectiveness measures and practices are clearly defined by executive leadership	The college's executive leadership plays a large role in determining which practices are used in assessing institutional effectiveness.	Institutional effectiveness measures are discussed at length by administration.
	Concern for faculty member's wellbeing (mentally and physically) is important when determining institutional effectiveness measures and practices	Faculty plays a large role in determining which practices and measures are developed and used	Creating faculty buy-in is important for successful IE practices and measures	Value to the students is important when determining which institutional effectiveness practices and measures will be used.	Transfer rates influence which IE practices and measures are implemented.	Degree completion rates are important measures of institutional effectiveness measures and practices	Student goal attainment (i.e. Transferring before graduation, getting a job, etc.) an important factor when developing IE practices and measures	Meeting labor market demands is an important institutional effectiveness practice	Highlighting ineffective practices and amending them is important	
		Faculty morale about institutional effectiveness measures and practices is considered when creating institutional effectiveness measures and practices.	Faculty training is an important factor when creating institutional effectiveness practices and measures		The performance of recently transferred community college students at four year colleges is an important measure of institutional effectiveness	Transfer rates are an important measure of institutional effectiveness		IE measures and practices are rolled out in an effective manner that allows faculty and staff ample time to adjust to the changes		
		Student satisfaction with the college is an important factor when choosing IE practices and measures	Creating and developing successful student outcomes are key factors when determining which IE practices and measures are used		Timely completion of a program is an important measure of institutional effectiveness measures and practices.	Program completion success rates are readily available and are important when determining institutional effectiveness practices and measures.		Faculty is provided information and training for creating effective and ineffective practices and measures		
			Student persistence (fall to fall) is an important factor when choosing IE practices and measures		Equity for all students is an important factor when choosing IE practices and measures	Ongoing evaluation and assessment of current practices and measures is important for effective institutional effectiveness practices and measures				
			Student access to classes and outside opportunities for success are important factors when choosing IE practices and measures.		Program learning outcomes are important to assessing institutional effectiveness measures and practices	Multiple areas of the institution (faculty, administration, workforce development, etc) work together to create effective institutional practices and measures.				

Figure 66: Model sort for Factor Five- Expectations IE Outcomes

Note: Distinguishing items are highlighted in red

The participants for this Factor were split with CTE and Academic/Transfer faculty members counting as 50% of the total each.

Summary

In Chapter 4, the data collected from faculty members throughout the NC Community College system was analyzed. It resulted in 20 participants loading into five factors which were identified in the study. Both quantitative and qualitative data was collected and analyzed for this study. A factor analysis was performed on the Q-sorts submitted by faculty members, while a post sort questionnaire was provided to gather the qualitative data that aided in explaining various ranking tendencies of participants.

Factor One, “Lack of Faculty Influence on IE,” can be represented by participants views on the lack of ability faculty has in influencing IE practices and measures at their college. Generally speaking, the participants that loaded into this factor felt faculty had little to no effect on the decision making process at their college.

Factor Two, “Negative Views of Administration Guiding IE Outcomes” contained participants that felt the administration at their institutions have done a poor job of providing guidelines and feedback for their expectations of IE practices and measures at their institutions. The participants held strong negative views on multiple areas of IE that are directly influenced by the administration at their institutions.

Factor Three, “Equity and Value Determine IE Outcomes” participants were strongly in support of outcomes that balanced student equity and value. These participants felt that these were two very important factors to consider when assessing IE outcomes and practices. They were not overly concerned with faculty morale or wellbeing, but stuck to the traditional community college value of students first.

Factor Four, “Internal Stakeholder Driven IE Outcomes,” was highlighted by participants that felt IE outcomes should be driven by the internal stakeholders of their institution. They did not value outside sources or traditional data, such as graduation or transfer rates as having a large effect on which outcomes were chosen. Instead they placed value on faculty input, administrative input, and equity for students when it came to deciding which items were best for assessing IE practices and measures.

Factor Five, “Faculty Development Outcomes,” was largely influenced by items that reflected clear expectations for IE practices and measures. Those participants felt that administration was in charge of outlining their expectations, which faculty should then be trained on. Assessment of outcomes would be ongoing and changes would be clearly communicated. This group was not as concerned with faculty’s overall wellbeing as much as they were with having the expectations for each item well outlined.

Based on this analysis, there were a wide variety of perspectives outlined by the faculty participants. A careful examination of the distinguishing statements, highest and lowest rated items, and post sort questionnaire responses helped highlight the varying viewpoints of the participants in this study. Chapter Five will delve deeper into the meaning provided by these findings, as well as further implications for future research and policy development.

CHAPTER 5: DISCUSSION AND IMPLICATIONS

This study was designed to identify factors that characterize the perceptions held by faculty members of the North Carolina Community College System. Both CTE and Academic/Transfer faculty from multiple community colleges participated in the Q-sort to provide insight into their perceptions of institutional effectiveness practices and measures at their institutions. A Q-set of 36 items was created from the literature surrounding institutional effectiveness practices and measures found in today's community colleges. A Q grid with a +5 (fully agree) to -5 (fully disagree) was developed so that participants could map out their perceptions of multiple statements relating to institutional effectiveness practices and measures as seen at their institution. The study of faculty perceptions was chosen due to the lack of mainstream information surrounding how faculty views institutional effectiveness practices and measures, with the goal of providing key insight into the perceptions of a key stakeholder group in the community college. Administration and various other groups have been the primary areas of research when assessing institutional effectiveness, creating a gap in the literature and isolating a major stakeholder of the delivery of said programs. This study was created to begin filling that gap, as well as provide another view of institutional effectiveness practices and measures as perceived by faculty, who should be considered as frontline stakeholders in the delivery of institutional effectiveness practices and measures. The lack of information has made the study of this subject relevant and timely due to the increased emphasis placed on institutional effectiveness in recent years.

This chapter will explore the findings of the study and it will provide a summary of the characteristics of the five factors that were identified during the study.

Conclusions

The conclusions developed in this study were created in response to the three research questions that were created to guide this particular study. The three research questions that this study addressed were:

1. What are the viewpoints of community college faculty that emerge toward measures of institutional effectiveness and why?
2. What items are similar between the viewpoints?

Consideration about how the results of this study could impact future practices in community college was also developed in the conclusions.

Conclusion 1. *What are the viewpoints of community college faculty that emerge toward measures of institutional effectiveness and why?* A five-factor solution emerged from the data analysis, indicating five different viewpoints regarding faculty perceptions of IE practices and measures. The researcher provided a descriptive name for each factor based on the characteristics of the viewpoints asserted by the participants.

Factor One: Lack of Faculty Influence on IE

Factor Two: Negative Views of Administration Guide IE Outcomes

Factor Three: Equity and Value Determine IE Outcomes

Factor Four: Internal Stakeholder Driven IE Outcomes

Factor Five: Faculty Development Outcomes

Comprehensive descriptions of each factor can be found in Chapter Four. The characteristics that highlighted each factor can be addressed by discussing distinguishing statements. The five factors indicate the five different viewpoints that were found at the time of data collection.

Factor One was distinguished by statements that highlighted a lack influence on the practices and measures chosen at the faculty member's host institutions. The faculty members in this group felt that they were rarely consulted, or even presented with relevant information during the development of IE practices and measures used at their institutions. During the post sort questionnaire statements noted that the inclusion of faculty could lead to better decision making, as well as better practices and measures that would benefit the school.

Factor Two was distinguished by statements that indicated that administration at these particular colleges guided the development of IE practices and measures at their institutions. Faculty members that factored into Factor Two indicated both positive and negative statements about administrations influence on which practices and measures were chosen for their colleges. Statements about effectively including different areas of the college, as well as frustrations that indicated a lack of inclusion were cited by members of this factor grouping.

Factor Three was distinguished by statements that related to a high level of importance being placed on access and equity for students. Faculty members that factored into this group indicated a strong need for and a desire to use student access and equity for students as a determining factor for choosing the most effective IE practices and measures. This factor group also indicated the perceived value of the community college to students to be very important. Overall this group found all three of these concepts to be most important when determining the practices and measures used in their colleges.

Factor Four indicated that internal stakeholders were the most important group to consider when creating effective practices and measures at their college. Overall this group did not value the outside stakeholders' opinions as highly as they did the internal stakeholders. Through analyzing the data, it can be determined that this group felt internal stakeholders

(administration, faculty, and staff) should be the biggest influencers of what practices and measures are utilized in their particular institutions.

Factor Five was highlighted by the members' perceptions of how the expectations of IE practices and measures were delivered at their college. Generally, there was a positive view of the delivery of expectations institutional effectiveness practices and measures at their institutions. The members that factored into this group found that the administration discusses, at length, many of the practices and measures. They also outline what they expect for the implementation of these particular factors. This group also indicated that faculty was given ample information about the development and implementation of these practices and measures.

To determine if there were any differences between faculty groups, the researcher examined how both Academic/Transfer faculty and Career and Technical Education Faculty members loaded into the five factors. At least one of each faculty type loaded into the Factors One, Three, and Five. The other two factors however, were homogenous with Factor Two and Factor Four containing all Academic/Transfer faculty members. From these results, Factor One, Three, and Five could be considered to contain similar viewpoints for both Academic/Transfer and CTE faculty. This left Factors Two and Four to be analyzed for any major differences between the two groups. Any major differences in Factor Two and Four could correlate to differing opinions between the two faculty groups.

After analyzing the qualitative responses for Factor Two and Factor Four, one major difference in opinion was found, which was, "Employer assessment of student performance is an important factor when choosing IE practices and measures" (S17). The three factors that contained both faculty types provided this statement with a neutral ranking of zero (0), however it was ranked as Factor Two's highest ranked item and Factor Four's lowest ranked

item. This could be based on the courses taught by the professors in each group. It was interesting to see an Academic/Transfer faculty group (Factor 2) rank it so highly, as this would generally be associated more traditionally with CTE groups.

Overall these two factor groups had similar viewpoints to one another, as well as the mixed factor groups for Factor One, Three, and Five. This study did not pinpoint any glaring differences between CTE or Academic/Transfer faculty members. Based on the information received from all members of the study, this study concludes that CTE and Academic/Transfer faculty share similar perceptions about institutional effectiveness practices and measures. This could indicate that there is an equal level of delivery throughout the participants' colleges, which aides in creating a clear, consistent message.

Conclusion 2. *What items are similar between the viewpoints?* After analysis of all 36 statements, no consensus items were found. However, four statements did contain similar viewpoints from the Five Factor groups. S16, S25, S26, and S27, all had similar rankings from the Five Factor groupings, but there was enough variations to eliminate them from being considered consensus statements. One could conclude from this that due to varying atmospheres at the reporting institutions and the faculty type has led to vast differences in the perceptions of the participants. This ties into the theoretical framework of Loose Coupling, showing that different organizations have different ways of promoting and developing their IE initiatives.

To answer this research question, the researcher examined how both Academic/Transfer faculty and Career and Technical education Faculty members loaded into the five factors. At least one of each faculty type loaded into the Factors One, Three, and Five. The other two factors were homogenous, with Factor Two and Factor Four containing all Academic/Transfer faculty members. From these results, Factor One, Three, and Five could be considered to

contain similar viewpoints for both Academic/Transfer and CTE faculty. This left Factors Two and Four to be analyzed for any major differences between the two groups. Any major differences in Factor Two and Four could correlate to differing opinions between the two faculty groups.

Three of the statements, S25, S26, and S27, had similar viewpoints that dealt directly with student program completion. While not completely a consensus statement, the viewpoints expressed by all five factor groups indicates there is a similar view on completion at their college. These three statements generally had a neutral viewpoint, but the similarity between the factor groups indicates that all participants placed some level of importance on it.

Statement 16 dealt with faculty morale. All groups indicated a negative viewpoint towards this statement, indicating that faculty morale was not considered an important factor when creating new IE initiatives. The viewpoints rated from highly negative to negative neutral. Considering that all five factor groups held similar views, this once again indicates a level of consensus into the role faculty morale plays. This could be an indicator that affects the buy-in at the colleges, as well as the general negative feelings towards faculty's role in the development of IE measures.

After analyzing the qualitative responses for Factor Two and Factor Four, one major difference in opinion was found, which was, "Employer assessment of student performance is an important factor when choosing IE practices and measures" (S17). The three factors that contained both faculty types provided this statement with a neutral ranking of zero (0), however it was ranked as Factor Two's highest ranked item and Factor Four's lowest ranked item. This is interesting as this would be a statement that is more likely to be related to CTE faculty members.

We can assume from this that the members of Factor Two have a high level of interest in how IE applies to the “real world” for their students.

Overall these two factor groups had similar viewpoints to one another, as well as the mixed factor groups for Factor One, Three, and Five. This study did not pinpoint any glaring differences between CTE or Academic/Transfer faculty members. Based on the information received from all members of the study, this study concludes that CTE and Academic/Transfer faculty share similar perceptions about institutional effectiveness practices and measures.

Conclusion 3. *How can the results of this study impact practices in community college?*

To distinguish which practices may have the greatest impact on community colleges, the results of the highest ranked and lowest ranked statements as rated by each of the five factors was analyzed. Table 23 provides the highest ranked statements from each factor, while Table 24 provides the lowest ranked statements from each factor.

Table 24: Highest Ranked Statements for the Five Factors

Factor	Number	Statement
One: Lack of Faculty Influence on IE	S1	The college's executive leadership plays a large role in determining which practices are used in assessing institutional effectiveness.
	S2	Administration is the sole determining factor in regards to which IE practices and measures will be used.
	S23	Degree completion rates are important measures of institutional effectiveness measures and practices
Two: Negative Views of Administration Guiding IE Outcomes	S17	Employer assessment of student performance is an important factor when choosing IE practices and measures.
	S12	Creating faculty buy-in is important for successful IE practices and measures
	S8	The perspective of external stakeholders (business, the community, etc.) is considered when evaluating institutional effectiveness
Three: Equity and Value Determine IE Outcomes	S30	Equity for all students is an important factor when choosing IE practices and measures
	S29	Successful advising is an important measure of institutional effectiveness
	S33	Ongoing evaluation and assessment of current practices and measures is important for effective institutional effectiveness practices and measures
Four: Internal Stakeholder Driven IE Outcomes	S1	The college's executive leadership plays a large role in determining which practices are used in assessing institutional effectiveness.
	S12	Creating faculty buy-in is important for successful IE practices and measures
	S33	Ongoing evaluation and assessment of current practices and measures is important for effective institutional effectiveness practices and measures
Five: Expectations of IE Outcomes	S3	Institutional effectiveness measures are discussed at length by administration.
	S1	The college's executive leadership plays a large role in determining which practices are used in assessing institutional effectiveness.
	S34	Highlighting ineffective practices and amending them is important.

Table 25: Lowest Ranked Statements for the Five Factors

Factor	Number	Statement
One: Lack of Faculty Influence on IE	S10	Faculty plays a large role in determining which practices and measures are developed and used
	S11	IE measures and practices are rolled out in an effective manner that allows faculty and staff ample time to adjust to the changes
	S16	Faculty morale about institutional effectiveness measures and practices is considered when creating institutional effectiveness measures and practices.
Two: Negative Views of Administration Guiding IE Outcomes	S2	Administration is the sole determining factor in regards to which IE practices and measures will be used.
	S5	The expectations for institutional effectiveness measures and practices are clearly defined by executive leadership
	S11	IE measures and practices are rolled out in an effective manner that allows faculty and staff ample time to adjust to the changes
Three: Equity and Value Determine IE Outcomes	S16	Faculty morale about institutional effectiveness measures and practices is considered when creating institutional effectiveness measures and practices.
	S12	Creating faculty buy-in is important for successful IE practices and measures
	S18	Workforce placement rates are an important when developing institutional effectiveness practices and measures
Four: Internal Stakeholder Driven IE Outcomes	S17	Employer assessment of student performance is an important factor when choosing IE practices and measures.
	S7	Outside donors (businesses, city or county officials, or individuals) have a large influence on which IE practices and measures are used.
	S24	Transfer rates are an important measure of institutional effectiveness
Five: Expectations of IE Outcomes	S7	Outside donors (businesses, city or county officials, or individuals) have a large influence on which IE practices and measures are used.
	S2	Administration is the sole determining factor in regards to which IE practices and measures will be used.
	S13	Concern for faculty member's wellbeing (mentally and physically) is important when determining institutional effectiveness measures and practices

When analyzing the highest ranked items for the Five Factors, it is obvious that faculty members believe their input in the institutional effectiveness decision making process is lacking. Administration being the main decision maker (S1) was found in the highest ranked items for three of the five factors. When analyzing individual Q-sorts, S1 was the highest ranked item overall for the 20 members that loaded into a Factor. This specifies an item that many faculty members indicate as being an issue that is impacting their institution. Being part of the conversation and decision making process is deemed to be important to the participants of this study, yet the same level of inclusion is not actually practiced at their colleges.

Another trend that was highlighted was the faculty's' viewpoints on evaluating institutional effectiveness practices and measures. Faculty members indicated that it is important to maintain a constant evaluation of IE practices and measures to adjust older methods, or simply to create new ones. Through analysis of both qualitative and quantitative data, the participants indicated that proper evaluation of measures and practices is important but that it is not always being conducted in the ways they believe best suits the college. To better serve the students and the college as a whole, better evaluation of current methods should allow for changes in the development and creation of new methods.

Across all of the factors, equitable outcomes for students also trended highly, showing many faculty members indicate creating equitable outcomes for all students holds value for them. This ties in closely with the mission of the NCCCS, making this a breath of fresh air. This indicates that all faculty want their students to be given a fair opportunity to achieve their academic goals. Combined in this is the faculty member's desire for the programs offered to be beneficial to their student's goals, thus creating value.

After examining the lowest ranked statements for each factor some trends are apparent; faculty tends to feel they don't have much say in the development of IE outcomes. This should probably be the first place that institutions look in regards to creating more impactful institutional effectiveness practices and measures. Interestingly, the faculty members also don't believe outside stakeholders should have a say in developing IE practices and measures. Three of the five factors indicated that outside donors or workforce indicators should not have an impact on IE practices and measures. This indicates that the faculty don't necessarily value what outside forces are saying, but instead see it more valuable to discuss these concepts with internal stakeholders. This could create a shift in the way institutions evaluate CTE programs as many times CTE programs are evaluated by both internal and external groups, such as workforce placement rates. However, this concept requires further research as many more Academic/Transfer faculty members participated which may have created a biased shift when in comparison to their CTE counterparts.

The results also indicate that the administration at these institutions could outline their expectations for IE practices and measures better. Combining this with how these new practices and measures are rolled out seems to indicate there is a lack of communication going on between faculty and administrators. Given that faculty is traditionally the group that must implement these practices, it would be wise for administrators to work with them, instead of simply telling them what to do without proper guidelines or training.

Overall, faculty members indicated that administration needs to be more open with faculty about the development and choosing of institutional effectiveness practices and measures. They also do not value statistics from outside factors, such as transfer rates, completion rates, or outside groups creating institutional effectiveness practices and measures. The trend seemed to

be more oriented to allowing institutions to create outcomes that benefit their students, while creating equity for all.

Application to Theoretical Framework

Loose Coupling was the theoretical framework used for this study. This was chosen due to the ways CTE and academic/transfer faculty are typically separated within their host institution. Another reason Loose Coupling was determined to be a valuable theoretical framework for this study was based on the concept that participants in the study would not be from the same institution, but instead from different institutions under the same college system. The purpose of the study was to measure the perceptions academic/transfer faculty held in comparison to CTE faculty members. Since Loose Coupling was developed to examine different parts of the same system (Bess & Dee, 2012), this theory fit perfectly for the entire study of differences in perceptions between the two separate groups working for the same institution, as well as different organizations working within the same college system.

This theory was highlighted by the fact that CTE and academic/transfer faculty both held similar views of institutional effectiveness practices and measures, but ultimately had slightly differing levels of importance places on particular statements. This tied in completely with Loose Coupling as all of the institutions have similar goals they must achieve, but the results deemed the importance placed on particular practices and measures leads the faculty's perceptions to slightly differ. Both CTE and academic/transfer faculty ranked administration having a heavy influence on decisions (S1) very highly. Both groups also indicated that equity for their students (S30) is important to them. On a deeper level this can even be seen through the concept of the system as a whole. Not every CTE or academic/transfer faculty member came from the same host institution, or even from the same institutional setting, yet in many cases they

loaded into the same Factors based on holding similar views to their academic/transfer faculty counterparts. This encompasses not only how each individual institution presents their new practices and measures, but also highlights how the system as a whole pushes for similar initiative concepts. Of course, every school words and creates their own actual initiatives, but the outline from the community college system office is in place.

However, even with high levels of general agreement, there were some results that pointed to issues within the loosely coupled system. S36, “*Multiple areas of the institution (faculty, administration, workforce development, etc.) work together to create effective institutional practices and measures,*” was rated in the “disagree” category for Factors 1, 3, and 4. Only Factor 5 had a “positive neutral” rating for this statement. This highlights that there may still be some separation between these two faculty groups at one or more institutions within the system, and that the active involvement of both groups may lead to more effective practices and measures.

The overall determination for this theoretical framework is that it is deemed to be relevant for this study. On many different levels these two groups are separate and autonomous to one another; however they are under the same umbrella both within their institutions and the system as a whole. This umbrella has an effect on how these practices and measures are delivered, which was highlighted by the multitude of similar responses by both faculty groups.

Limitations

This study sought to survey faculty members of the North Carolina Community College system about their perceptions of institutional effectiveness practices and measures as seen at their institutions. The hope was to develop insight into both effective and ineffective ways of developing and implementing practices and measures of institutional effectiveness. Given the

number of schools, faculty members, and willingness to support the study by each individual school, only a small number of faculty members in comparison to system wide numbers were able to complete the survey. The survey was distributed via email during the Spring 2018 semester. Participation was completely voluntary and completed on their own time, which is historically known for providing a smaller number of participants for a given study. As discussed in Chapter Three, the number of participants for this study was in the valid range, however given the individual differences of all 58 community colleges, the results may not encompass the views of all faculty members throughout the NC CC system. A much larger study at each individual school would need to be conducted to create a general understanding of how all faculty feel towards the institutional effectiveness outcomes witnessed at their particular institution.

Another issue that arose was a number of respondents did not correctly complete the sorting activity. Some only completed part of the study, thus their results for the Q-sort were eliminated. The forced-choice matrix also could have created a barrier for some as they felt their true feelings were not able to be specified. One participant described this in their post sort questionnaire, suggesting they would have held differing opinions but were forced to stay within the format. The respondent stated, “The format of the questions and ranking led to some responses that did not adequately represent the situation.”

The number of participating members that listed themselves as a CTE faculty member would also be a limitation to this study. Of the 20 participants that factored into a group, only three were listed as CTE faculty. Future studies should place more emphasis on gathering more data from CTE faculty to allow for more well-rounded results.

As institutional effectiveness practices and measures continue to evolve, the number of statements, and statement issues will continue to grow. While not stated specifically by any participant, the study of effective institutional effectiveness practices and measures will continue to adapt and grow as institutions begin highlighting beneficial practices. More practices could be added to the study that are more college specific. This would provide more information that directly relates to each individual school in the system.

This was the first study of its type, and in many cases faculty is not even considered when researchers survey institutions about their IE practices and measures. This creates a limited knowledge base, and causes some questions to be amended to fit faculty instead of administrators. This could also skew some of the results, as the opinions of faculty will not necessarily be the same as administrators, thus creating a gap in knowledge or understanding for faculty.

Implications for Practice in Community College Institutional Effectiveness

Factors 1, 3, and 5 are characterized by a collection of both CTE and Academic/Transfer faculty members. Across the board the responses of both faculty groups generally correlated with one another. The faculty groups did perceive some aspects of IE differently, hence loading into different Factors. More intriguing were the perceptions of the Academic/Transfer faculty member only groups (Factor 2 and 4). These two groups generally held more negative opinions of administrations' role in the decision making process as it pertains to institutional effectiveness. Both faculty groups also had similar views to institutional effectiveness decisions being stakeholder driven, while Academic/Transfer faculty preferred to disallow outside entities from having an influence on which practices and measures were chosen. This concept is not

surprising due to the majority of Academic/Transfer faculty not working in programs with strong exterior work study components.

There were not enough differences between CTE or Academic/Transfer faculty to create a clear delineation between the two faculty groups. This was interesting, as some of the statements may have related more to one faculty group than the other. Overall, their responses were very telling of how IE is viewed throughout their institutions. The perceptions that were found in this study indicated that faculty is not really given much say in the development of IE practices and measures. In Factors One, Four, and Five, S1 *“The college’s executive leadership plays a large role in determining which practices are used in assessing institutional effectiveness”* was one of the highest ranked items. This was the only statement that was ranked “highest” in three or more Factors. This would indicate that this is something that is both concerning to faculty, and witnessed by both faculty groups found throughout multiple institutions.

While it did not rank as the “highest ranking statement” in any Factor groups except Factor Three, all Factor groups indicated equity for their students was important to creating effective IE practices (S30) and measures. The Five Factor groups also felt strongly that the ongoing evaluation and assessment of current practices was essential to the development process (S33). These two statements, along with the role administration plays in the development of IE practices and measures (S1), were the only three statements to receive neutral to positive marks from all five factor groups. This would indicate that across all faculty types that these are important factors for IE practice developers to take into context. The faculty members have specified through their ratings, that these are highly important to them and the development process.

On the negative side, all factor groups indicated the statements that faculty morale about particular practices (S16) and faculty wellbeing (S13) were not considered when IE practices and

measures were created at their institutions. This was once again, an interesting observation as both faculty types indicated this to be the case. The responses about administrations' role in developing IE practices and measures also indicated that the participating faculty felt their overall role in the development of IE practices and measures was not considered. The overall tone of the results indicated that the faculty members would like to play a larger role, as well as creating more equitable outcomes and greater value for their students. The general consensus was that administration in the community colleges need to be more inclusive when in the decision making process for which IE practices and measures will be used in the colleges. The faculty members indicated that they would prefer to have a say, and that the internal stakeholders in their colleges are more important than external stakeholders. Combining this with the inclusion of more equitable outcomes, from the faculty's standpoint, would create better and more complete IE practices and more effective measures.

The findings of this study provide current and future administrators with an in depth look at the perceptions their faculty holds towards the IE process. By reviewing these results colleges could create new beneficial institutional effectiveness practices and measures at their institutions that would create more faculty buy-in. Given that faculty is a major stakeholder in the delivery of said IE practices, it is important that they are given access to the decision making process, and that their considerations are heard. The Factor groups provided a well-rounded view of how they currently see institutional effectiveness at their institutions. Some aspects are generally positive and should be fostered and expanded on. Other aspects of the IE development process were deemed to have a negative viewpoint associated with them, and could be reexamined and adjusted in future IE cycles to create better outcomes for both students and members of that institution. The viewpoints expressed by faculty illustrate the importance of all aspects of the

college working together as a unit to create the best possible outcomes for their students and institutions. This starts with being included in the process of determining which measures and practices will be used at the college. This study also sheds light into an area where the community colleges could be missing the opportunity to develop and create more ingenious or effective measures and practices that create better outcomes for their students. The ultimate goal of both administrators and faculty in the community college system is to provide a quality education to all students, to enhance the community in which they are located, and to create more positive outcomes for their students. Using the factors and viewpoints identified in this study, administrators can now highlight which areas of their institution are excelling in and which areas could be changed to better accommodate their students and faculty members.

Recommendations for Future Research

This study was developed to advance the area of institutional effectiveness and to fill in a gap into how those outside of administration view IE practices and measures. This study added another dimension to the study of IE practices and measures, however, there are still some areas that could be enhanced. As specified earlier, the number of participants that participated in this study only paints a broad stroke over the perceptions faculty members may hold about institutional effectiveness practices and measures. Given that a small percentage participated in comparison to the state system as a whole, another study could seek to gather more information from a larger group of individuals from within this community college system. Coordinating with the system office could result in greater acceptance of the survey which would allow for more results. I would also suggest that greater emphasis on gathering results from CTE faculty be part of future studies. This will provide a more holistic view of the views both faculty groups hold in regards to IE practices and measures. Given that Q studies are not concerned with

generalizability, there is also no guarantee that these findings would necessarily apply to all other states and their implementation of IE practices and measures.

Another area that could be enhanced is adding in the perceptions of administrators along with the faculty perceptions. Creating a study that allows both groups to apply their perceptions to a consistent set of statements would provide valuable insight into the similarities and differences between the two groups. This could provide future research with a well-rounded view of IE, and these two different stakeholder groups' views of IE. This study would also be able to highlight possible differences or similarities between the two groups. This could ultimately lead to better and more successful IE practices and measures.

Recommendations for College Administrators

The participants of this study consisted solely of faculty members in the North Carolina Community College system, who often find themselves at the forefront of the delivery and assessment of institutional effectiveness practices at their colleges. Whether it is a CTE faculty member who is working towards increasing workforce placement rates, or an academic/transfer faculty member who is working to increase retention rates, both faculty members are working to enhance the overall effectiveness of their colleges. Day in and day out these faculty members take on new roles for the betterment of their colleges. Given their propensity to take on these challenges every semester, it only makes sense that their role in the decision making process should be considered. The results from this study indicated that rarely is faculty considered when developing institutional effectiveness programs. I have experienced this first hand, as new practices and measures are rolled out on a yearly basis with limited or no faculty input. Some of the practices have been effective, others have been ineffective and required adjustments on what seems like a semester by semester basis. The results of this study have created several

recommendations that I believe would be of great benefit to all current and future administrators to improve their current institutional effectiveness practices.

First and foremost, as an administrator, creating faculty buy-in should be at the forefront of any implementation goals. The study showed that the perception of faculty buy-in being considered when developing programs and measures was never considered. “It is a near conceded point that obtaining individual buy-in for organizational change is not only important, but critical to success” (Mathews & Crocker, 2016, p. 81). The study indicated that the faculty felt it was important to be included on some of the decisions in regards to increasing their school’s effectiveness practices, however they were rarely considered in the conversations. A staff that feels they are valued, is more likely to work hard and go above beyond the minimum expectation. Positive rankings for a college is inherently a goal for all members of the institution.

A second item would be allowing faculty to be a more intricate member in the development of new programs and measures. In many cases the faculty in the community college has a Master’s degree or higher. Harnessing the combined knowledge and experience of the entire faculty would allow for more efficient and successful measures. Keeping in mind that the faculty are the ones who communicate and see the students on a daily basis, it seems that this would be an excellent group to converse with on increasing student success initiatives. The results of this study also indicate that the faculty felt their voices were muted in most cases. Creating an environment of open communication will allow faculty members to provide insight into what they’re seeing through their day to day interactions with students.

Open communication between administration and faculty would also create a consistent message for why a particular program or measure is being implemented, which will allow faculty

to see the administration's or board's view on particular issues facing the college. Based on this study, most faculty feel that things are just dictated to them without any reasoning. This can lead to push back, and research has shown that "unsuccessful efforts are largely due to leaders failing to obtain enough buy-in from their people" (Mathews & Crocker, 2016, p. 83). Including faculty members in the conversation will enhance the positive perception of inclusion, which should aid in creating more buy-in for administrators.

The final recommendation for administrators would be placing more emphasis on professional development in regards to new measures or practices being introduced at their schools. Professional development opportunities for faculty members would create more opportunities to better understand the goals and expectations for the delivery of specific practices and measures. Faculty would benefit from small group training, or individual sit downs with faculty trainers which would allow them to ask questions and create a better understanding of the initiatives and the goals administration wishes to accomplish. This also would aid in creating the buy-in that leads to better results. In general the statements on faculty training were viewed negatively, basically stating that faculty did not feel they were receiving ample training or information from the administration at their college in regards to IE practices and measures. This should be an area of concern for administrators given its ability to directly affect the outcomes of particular measures and practices. Providing faculty with the training, and information needed would only lead to better results for the college as a whole.

My recommendation to create better outcomes would be to create a roll out plan for all practices and measures that the faculty are directly involved in or assessing. Provide multiple mandatory training sessions that allow faculty members to learn and ask questions about the

newly developed criteria. This should aid in creating buy-in, which as earlier stated, allows for much greater success to the organization as a whole.

Recommendations for Future Q Studies

Participants indicated that they felt handcuffed by the forced choice format of the Q-sort, so the possible inclusion of an open-ended sort for a particular set of institutions or a pre-survey survey that indicates which areas of institutional effectiveness were identified as important by the target population could be revealing. Along with this the creation of additional post sort questions could lead to more holistic responses that contain more information as to how faculty perceives institutional effectiveness. The addition of other members of the institutions and how their perceptions correlate to the faculty members could also lead to interesting and telling results. The creation of a more comprehensive Q-set could also address some areas that may have been missed by this study. This could allow for more in depth responses and possibly allow for more representative opinion responses from all members of the survey.

Chapter Summary

This research study analyzed the results of 21 Academic/Transfer and Career and Technical Education faculty participants from a variety of community colleges located in the North Carolina Community College System who completed the Q-sort. The individuals sorted 36 concourse items on a “fully agree” (+5) to “fully disagree” (-5) scale in a forced choice format. The participants had to consider various statements about Institutional Effectiveness practices and measures, drawn from previous literature and concepts presented by previous studies relating similar concepts to members of administration. Twenty of the individuals loaded into five factors, which were distinguished by unique characteristics outlining varying perspectives. This study may extend the current knowledge of IE practices due to its inclusion of

faculty members, with whom very little research has been associated. By expanding on the current knowledge base, this study aimed to highlight some of the issues as seen by the faculty of these institutions. Given the role that faculty plays in the everyday success of our nation's community colleges, it is imperative that their voices be heard. As current and future administrators look for new ways to improve their colleges, tapping into the unmined resources of their faculty could be the exact boost in successful outcomes they are looking for.

REFERENCES

- Alfred, R. L. (2011). The Future of Institutional Effectiveness. *New Directions For Community Colleges*, pp. 103-113.
- Alfred, R., Ewell, P., Hudgins, J., & McClenney, K. (1999). *Core Indicators of Effectiveness for Community Colleges Toward High Performance* (2nd ed.). Washington, DC: American Association of Community Colleges.
- Alfred, R., Shults, C., & Seybert, J. (2007). *Core Indicators of Effectiveness For Community Colleges* (3rd ed.). Washington, DC: American Association of Community Colleges.
- Babbie, E. (2009). Survey Research Methods. In J. W. Creswell, *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* (p. 12). SAGE Publications, Inc.
- Bailey, T. R., Alfonso, M., Scott, M., & Leinbach, D. T. (2004). Educational outcomes of occupational postsecondary students.
- Bartlett, J. E., & DeWeese, B. (2015). Using the Q-methodology Approach in Human Research Development Research. *Advances In Developing Human Resources*, 72-87.
- Bess, J. I., & Dee, J. R. (2012). *Understanding College and University Organization*. Stylus Publishing.
- Brown, S. R. (1996). Q-methodology and qualitative research. *Qualitative Health Research*, 6(4), 561-567.
- Brown, S. R. (1997). *The history and principles of Q-methodology in psychology and the social sciences*.
- Calcagno, J. C., Bailey, T., Jenkins, D., Kienzl, G., & Leinbach, T. (2008). Community college student success: What institutional characteristics make a difference? *Economics of Education Review*, 632-645.

- Cameron, K. (1978). Measuring Organizational Effectiveness in Institutions of Higher Education. *Administrative Science Quarterly*, 23(4), 604-632.
- Caws, P. (2015). General Systems Theory: Its Past and Potential. *Systems Research and Behavioral Science*, 514-521.
- Cohen, A. M., Brawer, F. B., & Kisker, C. B. (2014). *The American Community College* (Sixth ed.). San Francisco: Jossey-Bass.
- Cohen, A., & Brawer, F. (2003). *The American Community College*. San Francisco: Jossey-Bass.
- College, C. P. (2016). *Visual Depiction Of The IE Plan*. Retrieved from www.cpcc.edu:
<http://www.cpcc.edu/ie/visual-depiction-of-the-i-e-plan>
- Commission on Colleges. (2005). *Resource Manual for the Principles of Accreditation: Foundations*. Retrieved from Southern Association of Colleges and Schools:
<http://www.sacscoc.org/pdf/handbooks/Exhibit%2031.Resource%20Manual.pdf>.
- Community College Review*. (n.d.). Retrieved June 14, 2016, from Community College Review:
<http://www.communitycollegereview.com/north-carolina>
- Creswell, J. W. (2009). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. SAGE Publications, Inc.
- Crisp, G., & Taggart, A. (2013). Community College Student Success Programs: A Synthesis, Critique, and Research Agenda. *Community College Journal of Research and Practice*, 37, 114-130.
- Cross, R. M. (2005). Exploring Attitudes: The Case For Q-methodology. *Health Education Research*, 206-213.
- Dean, K. L. (2015). Understanding Student Success by Measuring Co-Curricular Learning. *New Directions for Institutional Research*, pp. 27-38.

- Dodd, A. H. (2004). Accreditation as a Catalyst for Institutional Effectiveness. *New Directions for Institutional Research*.
- Dougherty, K. J., Lahr, H., & Morest, V. S. (2017, November). *Reforming the American Community College: Promising Changes and Their Challenges*. Retrieved from Community College Research Center at Columbia University: <https://ccrc.tc.columbia.edu/media/k2/attachments/reforming-american-community-college-promising-changes-challenges.pdf>
- Edmondson, D. R., Edwards, Y. D., & Boyer, S. L. (2012). Likert Scales: A Marketing Perspective. *International Journal of Business, Marketing, and Decision Sciences*, 5(2), 73-85.
- Ellerbe, L. W. (2015). Faculty Expectations for Student Success in Community College Developmental Math. *Community College Journal of Research and Practice*, 392-396.
- Ewell, P. (2011). Accountability and Institutional Effectiveness in the Community College. *New Directions For Community Colleges*, 23-37.
- Finwick, T. J. (2001). Using student outcomes to evaluate teaching: A cautious exploration. *New Directions for Teaching and Learning*, 88, 63-74.
- Frentzos, D. (2005). Credit and Non-credit Community College Enrollment and the Economy. *The Community College Enterprise*, 11(1), 93-103.
- Ginder, S. A., & Kelly-Reid, J. E. (2018). *Postsecondary Institutions and Cost of Attendance in 2016-17; Degrees and Other Awards Conferred; and 12-Month Enrollment: 2015-16: First Look*. National Center for Education Statistics.
- Gob, R., McCollin, C., & Ramalhoto, M. F. (2007). Ordinal Methodology in the Analysis of Likert Scales. *Quality & Quantity*, 41, 601-626.

- Goben, A. (2007). FanSASStic! Results: Collaboratively Leading Institutional Effectiveness Efforts in Higher Education Institutions. *SAS Global Forum 2007*.
- Goldrick-Rab, S. (2010). Challenges and Opportunities for Improving Community College Student Success. *Review of Educational Research*, 437-469.
- Gottman, J., Swanson, C., & Swanson, K. (2002). A General Systems Theory of Marriage: Nonlinear Difference Equation modeling of Marital Interaction. *Personality and Social Psychology Review*, 6(4), 326-340.
- Hagan, J., Hewitt, J. D., & Alwin, D. F. (1979). Ceremonial Justice: Crime and Punishment in a Loosely Coupled System. *Social Forces*, 58, 506-527.
- Head, R. B. (2011). The Evolution of Institutional Effectiveness in the Community College. *New Directions For Community Colleges*, pp. 5-11.
- Hirchy, A. S., Bremer, C. D., & Castellano, M. (2011). Career and Technical Education (CTE) Student Success in Community Colleges: A Conceptual Model. *Community College Review*, 296-318.
- Hoachlander, G., Sikora, A. C., & Horn, L. (2003). Community college students: Goals, academic preparedness, and outcomes. *Education Statistics Quarterly*, 5(2), 121-128.
- Hoefler, M. T. (2016). Institutional Effectiveness: An Overview. *SACSCOC Annual Meeting 2016* (pp. 1-13). SACCOCC.
- Hom, W. C. (2011, Spring). Stakeholders in the Institutional Effectiveness Process. *New Directions for Community Colleges*, pp. 89-101.
- Jenkins, D., & Fink, J. (2016). *Tracking Transfer*. Retrieved from The Aspen Institute: <http://www.aspeninstitute.org/publications/tackling-transfer>

- Jongbloed, B., Enders, J., & Salerno, C. (2008). Higher education and its communities: Interconnections, interdependencies and a research agenda. *Higher Education*, 303-324.
- Joshi, A., Kale, S., Chandel, S., & Pal, D. K. (2015). Likert Scale: Explored and Explained. *British Journal of Applied Science and Technology*, 396-403.
- Larsen, R., & Warne, R. T. (2010). Estimating Confidence Intervals For Eigenvalues in Exploratory Factor Analysis. *Behavior Research Methods*, 42(3), 871-876.
- Laughlin, J. A. (2016). Assessing the Measures of and Defining Community College Institutional Effectiveness: A President's Perspective Delphi Study. North Carolina State University. Retrieved from <http://www.lib.ncsu.edu/resolver/1840.16/10857>
- Manning, T. M. (2011). Institutional Effectiveness as Process and Practice in the American Community College. *New Directions for Community Colleges*, 13-21.
- Mathews, B. W., & Crocker, T. (2016). Defining "Buy-in:" Introducing the Buy-in Continuum. *Organizational Development Journal*, 81-96.
- McIntosh, M. F., & Rouse, C. E. (2009). *The other college: Retention and completion rates among two-year college students*. Washington, DC: Center for American Progress.
- McLeod, M. W., & Atwell, C. A. (1992). A Mini-Dictionary on Institutional Effectiveness Terms. *Community College Review*, 20(2), 30-38.
- Moosai, S., Walker, D. A., & Floyd, D. L. (2011). Characteristics to Predict Graduation Rates at Community Colleges: New Developments in Performance Measures and Institutional Effectiveness. *Community College Journal of Research and Practice*, 35, 802-816.
- Muffo, J. (2001). Institutional Effectiveness, Student Learning, and Outcomes Assessment. In R. Howard, *Institutional Research: Decision Support in Higher Education*.

- North Carolina Community College System. (2017). *North Carolina Title II Adult Education Provider Report On Measurable Skill Gains*. National Reporting System for Adult Education.
- North Carolina Community College System. (2018). *North Carolina 2018 Performance Measures Report*. Raleigh: North Carolina Community College System. Retrieved from <https://www.nccommunitycolleges.edu/analytics/state-and-federal-performance-measures>
- North Carolina State University. (2015). *IRB Basics*. Retrieved from NCSU IRB website: <http://www.ncsu.edu/sparcs/IRB/human.html>
- Nusser, S. M. (2006). Survey methodology. *Journal of the American Statistical Association*, 1310-1311.
- Oppenheim, A. N. (1992). *Questionnaire Design, Interviewing and Attitude Measurement*. London: Continuum.
- Pruneddu, A. (2017). *Q-Software/About*. Retrieved from Q-Software: www.qsoftware.net
- Pruslow, J. T., & Red Owl, R. H. (2012). Demonstrating the application of Q-methodology for fieldwork reporting in experiential education. *Journal of Experientail Education*, 35(2), 375-392.
- Robinson, V. M., & Timperley, H. S. (2007). The leadership of the improvement of teaching and learning: lessons from initiatives with positive outcomes for students. *Australian Journal of Education*, 51(3), 247-262.
- Rogers, J. T. (1997). Assessment in Accreditation: Has It Made a Difference? *Assessment Update*, 1-2.

- Royal, K. D., Eli, J. A., & Bradley, K. D. (2010). Exploring Community College Faculty Perceptions of Student Outcomes: Findings of a Pilot Study. *Community College Journal of Research and Practice*, 34(7), 523-540.
- SACSCOC. (2012). *Resource Manual for the Principles of Accreditation*.
- SACSCOC. (2018). *Accreditation*. Retrieved from SACS COC FAQ's:
<http://www.sacscoc.org/FAQsanswers.asp>
- Simons, J. (2013). An Introduction to Q-methodology. *Nurse Researcher*, 28-32.
- Singh, S. (2012). Ethics in research. *Indian Journal of Dermatology, Venerology, and Leprology*, 411-413.
- Skolits, G. J., & Graybeal, S. (2007). Community College Institutional Effectiveness: Perspectives of Campus Stakeholders. *Community College Review*, 34(4), 302-323.
- Smart, J. C., & Hamm, R. E. (1993). Organization Effectiveness and Mission Orientations of Two-Year Colleges. *Research in Higher Education*, 489-502.
- Stanigar, J. (2016). Views From Inside the "Black Box": A Q-Methodology Study of Mentoring Support for Entrepreneurs.
- Sullivan, M. M., & Wilds, P. C. (2001). Institutional Effectiveness: More Than Measuring Objectives, More Than Student Assessment. *Assessment Update*, 13(5).
- Swanson, R. A., & Holton, III, E. F. (2009). *Foundations of Human Resource Development* (2nd ed.). San Francisco: Berrett-Koehler Publishers, Inc.
- The Aspen Institute . (2015). *The 2015 Aspen Prize for Community College Excellence*. Retrieved from The Aspen Institute:
<https://assets.aspeninstitute.org/content/uploads/files/content/docs/pubs/2015AspenPrizePublication.pdf>

- Tinto, V. (1975). Tinto's Model of Retention. *Dropout from Higher Education: A Theoretical Synthesis of Recent Research*.
- Trowler, P. R. (1998). *Academics responding to change: new higher education frameworks and academic cultures*. Buckingham, UK: Society for Research into Higher Education and Open University Press.
- van Exel, J., & de Graaf, G. (2005). *Q-methodology: A Sneak Preview*. Retrieved from <http://qmethod.org/articles/vanExel.pdf>
- Von Bertalanffy, L. (1972). The History and Status of General Systems Theory. *The Academy of Management Journal*, 15(4), 407-426.
- Watts, S., & Stenner, P. (2012). *Doing Q-Methodological Research: Theory, Method and Interpretation*. Thousand Oaks, California: Sage Publications.
- Weick, K. E. (1976). Educational Organizations as Loosely Coupled Systems. *Administrative Science Quarterly*, 21(1), 1-19.
- Whicher, D., Kass, N., Saghal, Y., Faden, R., Tunis, S., & Pronovost, P. (2015). The Views of Quality Improvement Professionals and Comparative Effectiveness Researchers on Ethics, IRBs, and Oversight. *Journal of Empirical Research on Human Research Ethics*, 132-144.
- Witham, K., Kelly, P., & Wyner, J. (2014). *The Aspen Institute*. Retrieved from Using Comparative Information to Improve Student Success: <http://www.aspeninstitute.org/sites/default/files/content/docs/ccprize/UsingComparativeInformationGuide.pdf>

Woodman, R. W., Pettigrew, A. M., & Cameron, K. S. (2001). Studying Organizational Change and Development: Challenges for Future Research. *The Academy of Management Journal*, 697-713.

Woods, C. (2012). Exploring emotion in the higher education workplace: Capturing contracting perspectives using Q-methodology. *Higher Education*, 64(6), 891-909.

APPENDICES

Appendix A: Q-set

- S1. The college's executive leadership plays a large role in determining which practices are used in assessing institutional effectiveness. (Manning, 2011)
- S2. Administration is the sole determining factor in regards to which IE practices and measures will be used. (Manning, 2011)
- S3. Institutional effectiveness measures are discussed at length by administration. (Laughlin, 2016)
- S4. Successful student outcomes are clearly defined by administration. (Manning, 2011)
- S5. The expectations for institutional effectiveness measures and practices are clearly defined by executive leadership. (Manning, 2011)
- S6. Uniting multiple areas of the college to contribute to the implementation of institutional effectiveness measures and practices is completed by executive administration. (Head, The Evolution of Institutional Effectiveness in the Community College, 2011)
- S7. Outside donors (businesses, city or county officials, or individuals) have a large influence on which IE practices and measures are used. (Alfred R. L., 2011)
- S8. The perspective of external stakeholders (business, the community, etc.) is considered when evaluating institutional effectiveness. (Alfred R. L., 2011)
- S9. Meeting labor market demands is an important institutional effectiveness practice (Alfred R. L., 2011)
- S10. Faculty plays a large role in determining which practices and measures are developed and used (Laughlin, 2016)
- S11. IE measures and practices are rolled out in an effective manner that allows faculty and staff ample time to adjust to the changes (Hom, 2011)
- S12. Creating faculty buy-in is important for successful IE practices and measures (Goben, 2007)
- S13. Concern for faculty member's wellbeing (mentally and physically) is important when determining institutional effectiveness measures and practices (Goben, 2007)
- S14. Faculty training is an important factor when creating institutional effectiveness practices and measures (Goben, 2007)
- S15. Faculty is provided information and training for creating effective and ineffective practices and measures (Goben, 2007)

- S16. Faculty morale about institutional effectiveness measures and practices is considered when creating institutional effectiveness measures and practices. (Goben, 2007)
- S17. Employer assessment of student performance is an important factor when choosing IE practices and measures. (Alfred R. L., 2011)
- S18. Workforce placement rates are an important when developing institutional effectiveness practices and measures (Alfred, Shults, & Seybert, Core Indicators of Effectiveness For Community Colleges, 2007)
- S19. Transfer rates influence which IE practices and measures are implemented. (Laughlin, 2016)
- S20. Creating and developing successful student outcomes are key factors when determining which IE practices and measures are used. (Manning, 2011)
- S21. Student persistence (fall to fall) is an important factor when choosing IE practices and measures. (Alfred R. L., 2011)
- S22. Student goal attainment (i.e. Transferring before graduation, getting a job, etc.) an important factor when developing IE practices and measures. (Alfred, Shults, & Seybert, Core Indicators of Effectiveness For Community Colleges, 2007)
- S23. Degree completion rates are important measures of institutional effectiveness measures and practices. (Laughlin, 2016)
- S24. Transfer rates are an important measure of institutional effectiveness. (Alfred R. L., 2011)
- S25. The performance of recently transferred community college students at four year colleges is an important measure of institutional effectiveness. (Alfred R. L., 2011)
- S26. Program completion success rates are readily available and are important when determining institutional effectiveness practices and measures. (Alfred R. L., 2011)
- S27. Timely completion of a program is an important measure of institutional effectiveness measures and practices. (Alfred R. L., 2011)
- S28. Student access to classes and outside opportunities for success are important factors when choosing IE practices and measures. (Laughlin, 2016)
- S29. Successful advising is an important measure of institutional effectiveness (Goben, 2007)
- S30. Equity for all students is an important factor when choosing IE practices and measures (Alfred, Shults, & Seybert, Core Indicators of Effectiveness For Community Colleges, 2007)
- S31. Student satisfaction with the college is an important factor when choosing IE practices and measures. (Laughlin, 2016)

S32. Value to the students is important when determining which institutional effectiveness practices and measures will be used. (Alfred, Shults, & Seybert, Core Indicators of Effectiveness For Community Colleges, 2007)

S33. Ongoing evaluation and assessment of current practices and measures is important for effective institutional effectiveness practices and measures. (Commission on Colleges, 2005)

S34. Highlighting ineffective practices and amending them is important. (Manning, 2011)

S35. Program learning outcomes are important to assessing institutional effectiveness measures and practices. (Laughlin, 2016)

S36. Multiple areas of the institution (faculty, administration, workforce development, etc.) work together to create effective institutional practices and measures. (Ewell, 2011)

Appendix B: Demographic and Post Sort Questions

Demographic Questions:

- 1) Which faculty type do you most identify with?
 - a. Transfer/Academic Faculty
 - b. Career and Technical Education Faculty

- 2) Which best describes the location of your Institution?
 - a. Urban
 - b. Suburban
 - c. Rural

- 3) What is your gender?
 - a. Male
 - b. Female

- 4) Which best represents your ethnic background?
 - a. Caucasian
 - b. African American/Black
 - c. Hispanic
 - d. Native American or Alaskan Native
 - e. Asian/Pacific Islander
 - f. Other

- 5) Which Best represents your highest level of education achieved?
 - a. Associates degree
 - b. Bachelor's Degree
 - c. Master's Degree
 - d. Education Specialist
 - e. Doctorate
 - f. Post Doctorate

- 6) How many years have your worked at your present institution?
 - a. 0-5
 - b. 6-10
 - c. 11-15
 - d. 16-20
 - e. 20+

Post Sort Questions:

Which item did you rank highest and why?

Which item did you rank lowest and why?

What had the biggest impact on your overall sorting?

Were there any items you felt were omitted and why?

Appendix C: IRB Approval Letter

From: IRB Administrative Office <pins_notifications@ncsu.edu>
Subject: Bartlett - 12453 - IRB Protocol assigned Exempt status
Date: February 11, 2018 at 11:32:06 AM EST

Date: February 11, 2018

IRB Protocol 12453 has been assigned Exempt status

Title: Faculty Perceptions of Institutional Effectiveness Practices and Measures.

PI: Bartlett, James E

The research proposal named above has received administrative review and has been approved as exempt from the policy as outlined in the Code of Federal Regulations (Exemption: 46.101. Exempt b.2). Provided that the only participation of the subjects is as described in the proposal narrative, this project is exempt from further review. This approval does not expire, but any changes must be approved by the IRB prior to implementation.

1. This committee complies with requirements found in Title 45 part 46 of The Code of Federal Regulations. For NCSU projects, the Assurance Number is: FWA00003429.
2. Any changes to the protocol and supporting documents must be submitted and approved by the IRB prior to implementation.
3. If any unanticipated problems or adverse events occur, they must be reported to the IRB office within 5 business days by completing and submitting the unanticipated problem form on the IRB website: <http://research.ncsu.edu/sparcs/compliance/irb/submission-guidance/>.
4. Any unapproved departure from your approved IRB protocol results in non-compliance. Please find information regarding non-compliance here: http://research.ncsu.edu/sparcs-docs/irb/non-compliance_faq_sheet.pdf.

Please let us know if you have any questions.

Sincerely,

Mandy Driver
[919.515.7515](tel:919.515.7515)
IRB Analyst
ncsuirboffice@ncsu.edu
NC State IRB Office

Jennie Ofstein
[919.515.8754](tel:919.515.8754)
IRB Coordinator
irb-coordinator@ncsu.edu
NC State IRB Office

Appendix D: A copy of the opt-in email

Doctoral Dissertation Researcher Measuring Faculty Perceptions of Institutional Effectiveness Practices and Measures.

Dear Community College Faculty Member,

You are part of a select group of individuals that have been chosen to provide integral insight into the perceptions that faculty members hold of institutional effectiveness measures and practices at their particular community college. Your knowledge and first hand experiences with these measures and practices should provide this study with an in-depth view of the perceptions that current faculty members hold in regards to institutional effectiveness measures and practices being implemented. With this in mind, I would like to invite you to participate in a research study entitled Faculty Perceptions of Institutional Effectiveness Practices and Measures.

My name is Randy Romich, and I am currently completing my dissertation in the Adult and Community College Education program at North Carolina State University. The purpose of this research is to examine the perceptions that faculty members have for certain institutional effectiveness measures being implemented at their particular college. Participants will be completing a Q-sort which will highlight which measures and practices they perceive to be most effective to the measures and practices they find to be least effective.

Q-methodology is one of the most effective ways for researchers to gauge participant's perceptions of particular topics. You will be asked to complete an online Q-sort that will rank your perceptions of particular institutional effectiveness measures and practices. If you choose to participate, I believe it should only take 20-30 minutes of your time to complete the entire form. There will be a 21 day window to complete the survey. Your decision on whether to complete the study or not is based on your own free will, and will not have an effect on your current position or future positions at your institution. It is completely voluntary, and information that pertains to your current employer will remain confidential.

Your participation in this research study is completely voluntary. You may decline to answer the entire survey, or leave blank any statements you do not wish to answer. There are minimal risks to your participation in this study, and all responses will remain confidential. The data from each individual will remain private, and only once all of the research has been compiled will the combined totals of all participants be reported. No one other than the researcher will know your individual answers. There is no compensation for participation in this research.

If you choose to complete the survey please send an email stating your intention to be a part of the study to Facultyperceptionstudy@gmail.com. Sending this email will represent your consent to participating in this study. Once the email has been received a link to the Q-sort, along with a link that gathers demographic data and post survey questionnaire data will be sent to your email. It is asked that you complete all three parts of this study. Your full participation is greatly appreciated. Your email will not be saved or used for any other purposes other than the

distribution of the survey information. The Gmail account will be deleted following the completion of the study, and no identifying data will be retained.

If you have any questions about the study or the procedures, you may contact the researcher, Randy Romich, at (704-692-6462) or rjromich@ncsu.edu or at facultyperceptionstudy@gmail.com.

If you feel you have not been treated according to the descriptions in this form, or your rights as a participant in research have been violated during the course of this project, you may contact the IRB office at irb-coordinator@ncsu.edu or by phone at 1-919-515-8754.

Thank you for your assistance in this study.

Sincerely,

Randy Romich