GUIDED PATHWAYS IMPLEMENTATION: GAINING FACULTY SUPPORT TO REALIZE SUCCESSFUL TRANSFORMATIVE CHANGE

by

Nancy Dammer Moore

This dissertation is submitted in partial fulfillment of the requirements for the degree of

Doctor of Education

Ferris State University

March 2019

GUIDED PATHWAYS IMPLEMENTATION: GAINING FACULTY SUPPORT TO REALIZE SUCCESSFUL TRANSFORMATIVE CHANGE

by

Nancy Dammer Moore

Has been approved

March 2019

APPROVED:

John Garcia, Ph.D.
Committee Chair

Sandra Balkema, Ph.D.
Committee Member

Talia Koronkiewicz, Ed.D
Committee Member

Dissertation Committee

ACCEPTED:

Roberta C. Teahen, Ph.D., Director
Community College Leadership Program

ABSTRACT

Community colleges have been struggling to keep pace with the needs of local workforce, society, and an increasing global economy while retention and completion rates in higher education have been regressing. Guided pathways (GP) has been presented as a solution to combat these concerns; however, implementing GP necessitates radical change from current practices. Research has shown that both transformative change as well as change among faculty can be especially challenging to realize. What is needed is an understanding of best practices on how to facilitate transformative change among faculty so that faculty are integral in supporting, communicating, implementing, refining, and maintaining ongoing change. The purpose of this study was to identify the extent to which change strategies impacted the degree of faculty involvement in GP initiatives as well as the degree to which they affected the robustness of GP implementation.

This qualitative research utilized case study methodology that included semi-structured interviews with eight faculty from two Midwestern GP institutions. The conceptual framework for analyzing data included Kotter's eight-step change process and Senge's systems thinking approach. The study examined the factors that influenced faculty in their adoption of GP programs and the degree to which institutional practices were impacted by these change strategies. Zell (2003) maintains that unless faculty agree with proposed changes within their colleges, successful change implementation will not occur. Thus, this study sought to identify the most effective means to ensure faculty support of change.

The findings revealed that following Kotter's steps set the trajectory for a successful change process as each step built upon the next and strengthened a college's guiding coalition. Additionally, Kotter's process opened the door to Senge's systems thinking approach as the two systems worked in tandem to strengthen institutional collaboration and best practices. Information gained from this study can be used to guide institutional change practices to ensure better faculty buy-in, support, and commitment to ongoing change.

KEY WORDS: guided pathways, transformative change, change processes, community college

DEDICATION

This dissertation is dedicated to my husband, ***Brian***, my partner, my rock. Thank you for your continued encouragement and support on this journey. I look forward to our journeys ahead and thrilling changes that await.

To my daughters, ***Rebecca, Jordan,*** and ***Natalie,*** you have been my inspiration. Through example, you set a high bar and continuously reveal the brilliance of perseverance.

ACKNOWLEDGMENTS

Higher education enables dreams to become reality. For playing leading roles in my dream to get my doctorate in Community College Leadership, I want to acknowledge:

Dr. Ken Ender for his support of the Ferris State Harper College Cohort. Dr. Ender enabled our being in a position ready to continue the wonderful student success initiatives that he has put in place.

Dr. Barb Bouthillier, I could not have asked for a better mentor. Your sage advice kept me going and got me to the finish line.

Dr. Fiona Hert, your role took you well beyond program manager to include confidant, counselor, and cheerleader. Your encouragement, advice, and compassion came from an understanding one could only have from experience. I thank you for sharing yours.

Dr. Talia Koronkiewicz, thank you for serving on my dissertation committee. Your student success efforts and change experience enhanced my research; and your input and suggestions provided refinement to this document.

Dr. Sandra Balkema, thank you for being on my committee and for your unending support and guidance. You have a gift for sparking your students' thoughts and enabling them to take ideas to the next level. You are a role model for best practices in teaching and leadership.

Dr. John Garcia, who served as chair, thank you for your direction and expertise. The last three years have taken many twists and turns; however, your unwavering encouragement and guidance kept my writing on track. It has been a pleasure working with you both professionally and academically to enhance student success through institutional change. Your dedication to students is evident in all you do and it truly makes a difference.

TABLE OF CONTENTS

Page

List of Tables

Page

List of Figures

Page

Chapter One: Introduction to the Study

Introduction

This study explores the factors that influence faculty in their adoption of pathways programs in community colleges. This applies to faculty who have experienced a change to pathways programs at their colleges and have witnessed the effects of the program throughout its implementation. Pathways programs represent a prescribed plan of instructional courses designed to ensure a track to student success and on-time college completion. This study intends to elucidate best practices that strengthen faculty buy-in to pathways and to identify how pathways initiatives have addressed challenges to clear the way for institution-wide collaboration on pathways projects.

Statement of the Problem

College completion rates are down at a time when the need for a highly skilled workforce is rapidly increasing and changing. As community colleges adapt to prepare students for future careers, increase student completion, and meet the needs of the workforce, the structure of the student educational experience is changing from the way things have been traditionally done in many community colleges. Various change strategies have been vetted and supported from outside organizations; however, unless faculty agree with proposed changes within their colleges, successful implementation of change will not occur (Zell, 2003). Therefore, it is imperative that institutions identify and work toward best practices for successful change within community colleges.

For the first time in American history, the future of higher education is looking worse than the past as the United States has regressed in the attainment of college completion rates (Westin, 2014). The United States has taken a back seat as nations such as Norway, Australia, and Canada outperform it in both educational completion and economic mobility (AACC, 2012; OECD, 2012). In 1990, the United States ranked first in the world in attaining a four-year degree among 25-34-year-olds; today, the United States ranks 14th (AACC, 2012; OECD, 2012).

For a country that has been looked to as a gold standard for education, the numbers are not adding up. The middle class is shrinking, as nearly half have fallen into poverty or are low-income according to census data (Rugaber, 2014). Among first-time, full-time, degree-seeking students enrolling in public two-year institutions, approximately 20% graduate with a degree within three years (Grossman et al., 2015). Six years after enrollment, fewer than half (46%) of community college students earn a degree or certificate, attain their original educational goal, or transfer to a baccalaureate institution (Radford, Berkner, Wheeless, & Shepherd, 2010). Furthermore, a fourth of those who enroll in the fall semester fail to return in the spring (CCRC, n.d.). The United States is seeing younger generations less educated than their elders for the first time (AACC, 2012). The need for transformation in the United States' community college system is more vital than ever before.

To address improving student success and completion, community colleges have taken on completion initiatives including Complete College America (CCA), Achieving the Dream (ATD), Developmental Education Initiative (DEI), Completion by Design (CBD), and Guided Pathways (CCRC, 2015). These initiatives have attempted to increase student success outcomes, provide clearer pathways for students, reform developmental education, and help students remain on a path to master knowledge that will enable advancement in the labor market and successful pursuit of further education.

The Community College Resource Center (CCRC) in conjunction with other scholars drew from research in order to form policy and practice based on three general areas:

1. The community college environment is too complex for students and college level programs need to be simplified and made more coherent (Scott-Clayton, 2011).

2. Students were more likely to graduate if they gained early momentum and passed gateway courses in their first year (Attewell, Heil, & Reisel, 2011; Jenkins & Cho, 2012). Gateway courses refer to those that contain material in which a student needs strong understanding in order to be successful in completing course requirements for their major.

3. Conventional developmental coursework did not help underprepared students and can even increase students' time to degree and decrease their likelihood of completion (National Center for Public Policy and Higher Education, 2010).

These three areas along with successes and lessons learned from previous college completion initiatives played a major role in the design of guided pathways projects.

Guided pathways (GP) is a highly-structured approach to higher education that presents courses in particularly structured, educationally coherent program maps. The thought behind GP is that students

are more likely to complete college in a timely manner if they choose a program of study, develop an academic plan at the beginning of their academic experience, and follow a roadmap of the courses necessary to obtain a credential for their course of study, as well as receive ongoing support and guidance to keep them on their plan (CCRC, 2015). Within GP, faculty and advisors guide incoming students through career exploration, choosing a program of study, and developing academic plans with predictable schedules for student planning. Additionally, faculty and advisors provide frequent feedback and monitoring to keep students on the path to completion.

Implementing GP is a large-scale overhaul of the educational process as it has been known. Unlike many reform pilots and programs that community colleges have tried and tested over the past 15 years, the GP approach necessitates complete transformation in practice impacting a college's culture, behavior, and mindset as well as its strategy, structure, systems, and processes; thus, GP fall under the transformative change category as defined by Anderson & Anderson (2010).

Phelan (2016) contends that for institutions to remain innovative and competitive, leaders "must understand change, appreciate its potential, and most importantly, learn to work within its varied dimensions and constructs" (p. 3); these constructs include the physical, financial, and personnel. He adds, that if community college change is going to occur, it will be "through and by personnel" (Phelan, 2016, p. 20). Thus, understanding personnel, their stance toward change, and obstacles that may impede change is of the utmost relevance toward implementing GP change.

This study aims to identify effective change processes in the implementation of GP as they relate to change management strategies. Extensive research has been done in regards to receptivity to change; Lane (2007), Kotter (2012), Senge (2014), and Chedelin (2000) identify factors that contribute to change resistance in both individuals and organizations. Understanding these factors as well as how they have been preemptively eliminated or alleviated may aid in successful pathways implementation in higher education.

Statement of Purpose

The purpose of this research was to identify the extent to which change strategies impacted the degree of faculty involvement in GP initiatives as well as the degree to which they affected the robustness of GP implementation.

Research Questions

The focus of this study was to elicit information from faculty in institutions that have been implementing guided pathways. The overarching questions to be answered were:

- To what extent did institutions incorporate Kotter and Senge's change strategies in their onboarding and implementation of GP?
- How did incorporation of Kotter and Senge's change strategies affect faculty receptivity of GP?
- How did the level of faculty receptivity and support impact the robustness of GP implementation?

Importance and Justification for the Study

Community colleges are being asked to make vast change, causing discontentment among many faculty, the front line to the students and student success. It is vital that concerns are identified and addressed between institutions and faculty to ensure that student success initiatives continue to move forward. Bailey, Jaggers, and Jenkins (2015) discuss barriers to educational change that need to be overcome, but there remains a dearth of information from a faculty perspective about the most effective ways to prevent barriers from taking hold.

The research in this study intends to shed light on what practices have been successful with faculty involved in implementing GPs. Finding the most effective means for faculty support and engagement requires gaining perspective from faculty who have experienced pre-and post-pathways change as it is only they who can recount personal experiences of the progression of pathway implementation. The findings of this study can be used by community colleges as they implement the change necessary to remain competitive and promote student success and completion in higher education.

Description of the Study's Design

A qualitative approach was utilized in this study due to the expressive nature of information needed to inform decisions on a specific course of action (Merriam & Tisdell, 2016). Specifically, this study employed a semi-structured interview methodology within an interpretative model. Semi-structured interviews can uncover participants' descriptive data or personal experiences and move dialogue from general discussions to gain more specific insights.

This study utilized non-probability sampling as it sought to discover participants' perceptions and thought processes, and to examine the relationship between participants' views and best practices to implementing pathways. According to Creswell and Plano Clark (2011), purposeful sampling involves identifying and selecting participants who have knowledge about and experience in the area of interest. In addition to purposeful selection, this study employed critical case sampling, a strategy for choosing purposeful samples from select cases.

Data collection for this study included multiple interviews from two different GP institutions in order to strengthen the generalizability of its findings. In addition to interviewing participants, the researcher utilized observation and field notes collected during the interviews. Theming, coding, data cleaning, charting, and mapping were methods that were used to enable the researcher to analyze, describe, summarize, and interpret the data as it was being collected and to answer questions as they arose in light of research.

Delimitations & Limitations

Researchers are considered an instrument within qualitative research as they seek to understand the phenomenon rather than identify the relationship between variables (Creswell, 2004). Given the researcher's direct involvement in the study, recognizing and identifying the researcher's role, background, and biases were necessary to remain objective throughout data collection and analysis. In addition to recognizing researcher bias, a researcher must also be cognizant of a study's limitations. A known limitation to this study was accurate recall by the participants.

Researcher bias.

Alleviating bias and subjectivity through self-reflection or reflexivity is vital in the interpretative paradigm. Therefore, addressing preformed opinions, the researcher's role within her own college, and the impact participants' viewpoints may have had on the research were necessary to address as possible biases within this study. Merriam (2002) describes reflexivity as, "critical self-reflection by the researcher regarding assumptions, worldview, biases, theoretical orientation, and relationship to the study that may affect the investigation" (p. 31). Reflexivity is also described as the lens the researcher looks through to view the world (Guba and Lincoln, 2005). Since the researcher was on a team involved in the planning

process of a pathways project at her institution, attentive critical reflection was essential as was being hyper-aware to employ empathic neutrality in the interpretation and presentation of data for this study.

Accurate recall by participants.

One limitation that may have been present in this study included accurate recall. Careful participant selection was utilized to alleviate this limitation, however, as time passed and GP became more of a norm at participating colleges, participants' recall may have been jeopardized. Careful notetaking and memoing were used to document all areas where objectivity could have been questioned.

Research Assumptions

The assumptions made in this study included:

1. The participants would answer the interview questions in an honest and candid manner. Participants had not been coerced to participate in the study and were aware that anonymity and confidentiality would be preserved. They were also aware that they could exit the study at any time with no ramifications.

2. The inclusion criteria of the sample were appropriate ensuring that the participants had all experienced the same or similar phenomenon of the study. This was addressed through interview questions prior to the selection process to vet participants' participation in the pathways process.

3. Participants had a sincere interest in participating in this research study and did not have any other motives.

Definition of Terms

The terms ***guided pathways*** and ***pathways projects*** are used throughout this paper. The ***guided pathways*** (GP) model referred to in this paper is representative of a more inclusive model designed in collaboration with the Community College Resource Center as programs of study that are aligned with specific requirements for success in engagement and in the next stage of education (CCRC, 2015). ***Pathways projects*** refer to projects that implement variations of the GP model with the same end goal: to improve student persistence, completion, and success. Programs, support services, and instructional approaches are redesigned and re-aligned to aid students in identifying goals and remaining on a pathway to completion. The terms meta-majors, Completion by Design (CBD), and pathways are all used to represent a guided approach toward student success and completion.

Acronyms used in this research

AI	Appreciative Inquiry
ASC	Academic Support Council
ATD	Achieving the Dream
C1	College One
C2	College Two
CB	Consensus Building
CBD	Completion by Design
CBE	Competency Based Education
CCA	Complete College America
CCOSS	Community College Organization for Student Success
CCRC	Community College Resource Center
DEI	Developmental Education Initiative
FYS	First Year Seminar
GP	Guided Pathways
IRB	Institutional Review Board
MOOCS	Massive Open Online Courses
ST	Systems Thinking
SV	Shared Values

Summary

To confront regression in higher education completion rates and better prepare students for the changing workforce, many community colleges within the United States have committed to a new completion agenda directing college students down a guided pathway toward successful completion. The implementation of GP brings about transformational change requiring institutional buy-in from all areas of a college, particularly, faculty, who are the front-line to student success. Understanding best practices to enhance acceptance for the change GP brings about is the first step to implementing them.

The research in this study was intended to shed light on what practices have been successful with faculty involved in implementing pathways. Finding the most effective means for faculty support and engagement requires gaining perspective from those who have experienced pre-and post-pathways change. The findings of this study can be used by community colleges as they implement the change necessary to remain competitive and promote student success and completion in higher education.

Organization of the Dissertation

Chapter One offers a synopsis of the issue, a statement of the problem, the purpose statement of this study, and conveys the driving questions this study sought to answer. Brief overviews of the study's design and related literature are presented. The worth of this study relies upon its findings that are intended to be used to assist community colleges that are implementing pathways programs toward more seamless and institutionally collaborative pathways implementation.

Chapter Two highlights the changes that have taken place throughout the history of higher education as it has worked to effectively meet the needs of changing times. Literature is reviewed to highlight differences between types of change and change strategies as well as the need for transformative change necessitated by GP. Various collaboration techniques are discussed as they pertain to change management and transformative change strategy, with a focus on John Kotter's transformative change model and Peter Senge's systems thinking approach. Finally, this chapter addresses factors that come into play which can enhance or thwart the course of change.

Chapter Three focuses on the design and criteria for this study, providing support for its qualitative paradigm and case study methodology. This chapter also explains this study's sampling procedure, instrumentation, data collection, and data analysis techniques. Details of the researcher as a research instrument is provided to illuminate the importance of this role in qualitative research. Additionally, this chapter discusses the importance of trustworthiness, validity, and reliability as they pertain to this study.

Chapter Four discusses data protocol and supplies participants' profiles and interview findings, which are organized by research questions and are presented through participant dialogue and researcher observations. The research questions also follow the chronology of Kotter's change transformation steps as they relate to the researched institution's change implementation. This chapter ends with emergent themes that had arisen through the interview process.

Chapter Five analyzes the data presented in this research to identify if and how institutions incorporated change theory from Kotter and Senge throughout the phases of their GP implementation. Data is explored to examine the extent to which the incorporation of these change strategies affected faculty receptivity of GP noting best practices for faculty receptivity and support of GP change. The

analysis of the information and perspectives provided by participants is the basis of the findings, conclusions, and implications for future change initiatives in community colleges.

The sixth and final chapter addresses the implications, delimitations and limitations of this study, and makes recommendations for future research.

Chapter Two: Review of Literature

Introduction

Change is constant within community colleges as institutions continually change to keep pace with the demands of society, local economy, and workforce. Although necessary, change is not accepted with open arms among many faculty. This chapter reviews literature as it pertains to change strategy and its effect on faculty as American community colleges attempt to combat declining retention and completion rates through the implementation of guided pathways (GP).

A number of factors come into play when employing change in higher education. Thoughtful consideration to the type of change as well as its breadth and impact help ensure that the right decisions are being made. Due to the radical nature of transformational change, the type of change necessary to implement GP, its effects impact nearly every aspect of a college. This impact requires critical attention be given to overarching themes and the domino effect it can cause, particularly as it relates to those working closest with students — faculty.

Strategic institutional planning traditionally happens at the administrative level; yet, faculty are most affected by decisions made. In order to safeguard desired change outcomes, the question needed to be addressed is, "What is the most effective way to ensure successful change implementation?" Decision-making will ultimately be done at the executive level but taking into account the ideas and positions of faculty, the front line to the students, can alleviate issues that can impede or overshadow change progression.

The process of implementing transformative change brings uncertainty and concern, so taking precaution to eliminate foreseeable issues can aid the transformation process. Understanding what issues may cause faculty to refrain from supporting GP change and how these matters can be avoided or managed can assist community colleges that are implementing GP in gaining the support and cooperation necessary for an efficacious process. Limited research has been done on individuals whom have been impacted through the implementation of the GP process; therefore, there exists a notable lack

of information regarding the barriers that faculty face and the most effective strategies in the implementation of GP.

To address this research, this study sought a combination of theories and concepts. The theories and concepts pertinent to this study included the disciplines of business, management, education, and psychology. The study was situated within the community college environment; therefore, a review of the evolution of change in community colleges was relevant as it framed the role colleges have played in preparing students for changing times. The concepts of change management theory included work from ***Leading Change*** (2012) authored by John Kotter, an influential guru in the area of change management. Additionally, this study looked at Appreciative Inquiry (AI) strategies. Appreciative Inquiry is a method used for observing and making change within social systems by using collective inquiry and input from those involved, analyzing the best of a current situation, and envisioning what can be. Collectively, those involved design the future state. Fueled by positivity and forward thinking, this collaborative process can successfully enable change without the use of incentives, coercion or persuasion (Kessler, 2013). Kotter's eight-step change model is noted in the data analysis of this research as it compares, contrasts, and parallels with Appreciative Inquiry determining the extent of collaborative processes utilized in change implementation.

The purpose of this research was to identify the extent to which change strategies impacted the degree of faculty involvement in GP initiatives. Insights from this study can assist community colleges in effective change processes as they combat declining persistence and completion rates through the implementation of GP.

Background of Community Colleges

Since their inception, change has been a dynamic force of community colleges as they have consistently fine-tuned their offerings to meet the needs of those they serve. Decades before America's first community college was established, the US government had already been supporting continued education through initiatives like the Morrell Act of 1862 (Land-Grant College Act of 1862, n.d.), granting land to states in an effort to promote and finance colleges with agricultural and mechanical education, skills that were needed for the time (Drury, 2003). The second Morrell Act of 1890 initiated regular appropriations to ensure that land grant colleges, namely Native American and African American

colleges, were provided a venue to further educational opportunities, again preparing students for the changes of the time (National Research Council [NRC], 1995).

Expanding upon the practical training offered by initial land-grant colleges, Joliet Junior College (JJC), America's first community college, was opened in Joliet, IL, in 1901, providing a mainly liberal arts education. In the years that ensued, JJC along with other community colleges that were founded, creatively responded to societal pressures and changes brought on from the Great Depression, World War II, and rapid social change in order to prepare society with the skills needed for the times.

During the Depression of the 1930s, community colleges began offering job-training programs to ease widespread unemployment. These vocational training programs went beyond handiworks and manual arts, offering white-collar courses of study including business, accounting, finance, civil engineering, nursing, and marketing (Trainor, 2015).

Post World War II brought about both the conversion of the military industry toward a consumer-based industry as well as the GI Bill in 1944. These changes generated the need for more educational options as community colleges prepared those who served to reenter the workforce with the skills necessary in a once again changing America. Both the transfer and the occupational divisions of colleges grew at a steady pace as an influx of servicemen prompted further curriculum development in the area of two-year occupational programs that increased and continued to grow steadily to meet the needs of a growing business, industrial, and technological society (Joliet Junior College, n.d.).

In addition to changing course offerings at community colleges, the GI Bill broke through the social and financial barriers that had previously prevented students from attending college providing greater areas of study for a more diverse population of students, once again impacting programs and the mission of higher education (Vaughan, 2006).

The student population grew to be more diverse in the 1960s as the times and the economy contributed to more great change. The explosion of baby boomers along with a strong economy and community activism drove the construction of 457 new community colleges. Not only did the number of colleges increase in the 1960s, so too did social, political, and cultural matters. Issues including the Vietnam War; the Space Program; the Civil Rights, Black Power, and Women's Rights Movements; and environmentalism gave way to even more change. Community colleges pioneered an open-door

admission policy, and an unprecedented diverse student body inclusive of minority groups, non-traditional adult students, and returning combat veterans filled institutions. At this point in time, the diversity of community college enrollment roughly represented American society as a whole (Trainor, 2015). Another result of community colleges' newly found diversity was inventive course formats, social services, distance learning, counseling, and the infrastructure that eventually laid similar groundwork for four-year universities (Trainor, 2015).

The economic downturn of 2008 added a new layer of diversity to community colleges as many adult victims of mid-career layoffs found themselves in need of a new skillset (Van Noy & Zeidenburg, 2009). Additionally, community colleges found an influx of retirees entering and reentering institutions in pursuit of learning new skills. Once again, community colleges were called upon to change in an effort to align with societal needs while preparing for the next change in the labor market.

Today, community colleges continue to meet society's changing needs as well as prepare for tomorrow by adapting to meet the personal, societal, and economic challenges of the day. They continue to thrive through their resiliency, adjusting to the needs of society and providing opportunity to all through their open access and affordability. Community colleges remain committed to implementing the change necessary to accommodate the interests and needs of the millions of students who enter through their doors, enabling them to meet the challenges of the times.

Community colleges are once again embarking upon great change in an effort to increase student success and completion through the implementation of guided pathways, an approach dedicated to ensuring that students complete a degree in a timely manner. This approach includes developing an academic plan early on in a student's academic career, having a clear road map of the courses needed to complete a credential, and receiving guidance and support to help students stay on plan (Bailey, Jaggars, & Jenkins, 2015). As today's community colleges manage the ever-dynamic areas of accountability, diversity, technology, and globalization, they remain dedicated to providing students the tools necessary for success and completion, enabling them to effectively pursue careers and continue their education.

Community colleges have consistently kept pace with the needs of those whom they serve by anticipating and responding to change brought on by industrial, demographical, economical, technological, and social change. Communities have come to expect that their local colleges will be able

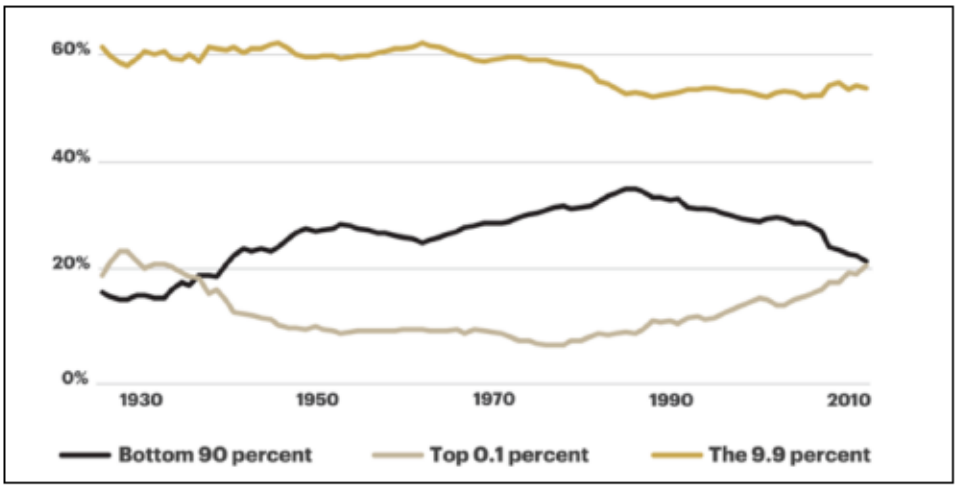
to provide the training necessary for individual advancement keeping current with the skills needed for the day, as well as delivering increased support and accommodating diversity, and higher levels of quality and success.

Review of the Problem

Student retention and completion have been on a downward slide setting the United States up to be ill-equipped for tomorrow's workforce. While there is an amount of information regarding faculty involvement in student completion efforts, there is a dearth of information regarding what it takes for effective faculty involvement in change initiatives in higher education. Additionally, there is little known about how change efforts fail when not implicitly backed by faculty. The literature presented in this chapter addresses both the need for change in student success initiatives as well as the need for total faculty support.

To clearly understand higher education in the United States, one must be cognizant of the significance of open access at community colleges, who is taking advantage of higher education, and what resources are in place to ensure student success. While not true of all countries, it has been shown that in the United States, if one's parents have not pursued an education, the likelihood that their children will take advantage of higher education is lessened (Krueger, 2012). Community colleges afford the opportunity to break through this cycle and to ensure forward movement in educational attainment efforts; however, making this opportunity available alone is not enough. A large majority of students, namely first-generation students attending college, require help in knowing what is available to them as well as navigating higher education if they are to have any chance at success.

Despite the popular idea of economic mobility in the land of the free, socio-economic mobility has actually been decreasing over the past three decades as the richest 0.1% of Americans have continuously picked up wealth at the expense of the bottom 90% of the population. In a comparison of the upper, middle, and lower class, Stewart (2018) illustrates this fact depicting that although 99.9% of America's population has remained relatively stable over the past thirty years, the middle class has been steadily shrinking as the top 0.1% of the income bracket has consistently grown at the expense of the bottom 90th percentile (see Figure 1).



Source: Saez / Zucman

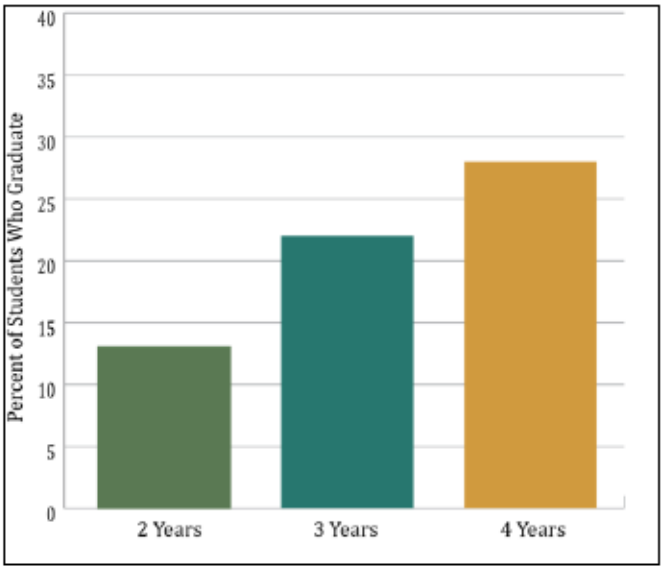
Figure 1. A Table of Three Classes

Parental income has been shown to matter more for children's success in the U.S. than in other economically developed countries (DeParle, 2012). Given the correlation between education and income, the trajectory of the bottom 90% is grim unless this group has the educational capabilities to compete in today's global economy. In his State of the Union Address, President Obama referred to education as "one of the best anti-poverty programs" (Obama, paragraph 50, 2010).

The United States has consistently made measurable growth in improving access to post-secondary education but has remained relatively stagnant in degree attainment compared to other countries. The U.S. has fallen from being ranked 1st in the world in realizing a four-year degree among 25–34-year-olds to the being ranked 14th (AACC, 2012; OECD, 2012). Graduation rates, defined as the calculated percentages of students who graduate or complete their program within a specified timeframe, are representative of full-time, first-time, degree/certificate-seeking students who started and finished at the same institution (IPEDS, 2016). According to the National Center for Educational Statistics (NCES), graduation rates among first-time, full-time degree seeking students enrolling in community colleges are approximately 13% in two years, 22% in three years, and the four-year rate is 28% (see Figure 2) (Kraemer, 2013). Of the first-time, full-time, degree-seeking community college students, slightly under 39% of students seeking post-secondary education graduate within six years (Sharpiro & Dundar, 2014). Six years after enrollment, fewer than half (46%) of community college students earn a degree or certificate, attain their original educational goal, or transfer to a baccalaureate institution (Radford,

Berkner, Wheeless, & Shepherd, 2010).

Graduation rates are not where they need to be to keep pace with the changing skillset and needs of America's workforce. By 2020, the US economy is predicted to grow from 140 million to 165 million jobs, and 65% of all jobs in the economy will require postsecondary education and training beyond high school (Carnavele, Smith & Strohl, 2013). At current completion rates, according to a report by Georgetown University's Center on Education and the Workforce, by 2020, the United States will be shy five million workers with postsecondary education (Carnavele, Smith & Strohl, 2013).



Source: Kraemer (2013)

Figure 2. Percent of US Students Enrolled in Public Two-Year Institutions Who Graduate in Two, Three, and Four Years

Despite efforts made, projections show that the United States is not on track to make the improvements in degrees confirmed over the next decade to meet these workforce needs (Hussar & Bailey, 2011).

In addition to declining completion rates, delivery of higher education is changing at unprecedented rates, offering students more options than ever before. Whereby community colleges and four-year institutions have always been the main sources of post-secondary education, students are being met with more alternative educational choices than previously offered. Massive open online courses (MOOCS), competency-based education (CBE), credentialing, and subscription enrollment models exemplify some of the choices facing community college students. Competition for student

enrollment is greater than ever before; and with uncertainty of federal, state, and local funding allocations, institutional reliance on enrollment for tuition plays a much greater role than in the past, causing students to thoughtfully consider the cost effectiveness of their educational choices.

For community colleges to remain competitive in the higher education market, they need to be ultra-cognizant of and in an active state of change to ensure students' needs are met (Phelan, 2016). According to Kotter (2012):

> The hierarchical structures and organizational processes we have used for decades to run and improve our enterprises are no longer up to the task of winning in this faster-moving world. In fact, they can actually thwart attempts to compete in a marketplace where discontinuities are more frequent and innovators must always be ready to face new problems…any [organization] that isn't rethinking its direction every few years-- as well as constantly adjusting to change contexts — and then quickly making significant operation changes is putting itself at risk. (pp. 44-58)

Phelan contends that unless community colleges embrace today's expectations, they will lose their relevancy as people go elsewhere to attain their educational and training needs (Phelan, 2016, p. xvii).

In addition to the competition of alternative educational resources for higher education, governing bodies are calling for greater transparency and accountability at the same time they are decreasing their funding. Institutions are being mandated to prove their competitive edge and need concrete proof to show that they are doing so. Institutions are expected to show their persistence, completion, and job placement rates; to do so, they need to ensure that they are providing the tools necessary for students to persist, complete, and attain the skills to successfully engage in the today's job market and global economy.

Federal and state funding has been on a continuous downslide resulting in college budgets moving from subsidies toward being heavily tuition based. According to the latest annual survey of state spending, since 1992, spending per student (adjusted for inflation) has declined by 8% at public colleges and universities (SHEEO, 2018). In turn, per student tuition has increased by 96% (Brownstein, 2018).

As of 2017, public colleges and universities in most states have shifted from receiving most of their revenue from government appropriations to tuition-based revenue, setting up an even larger socio-economic divide. This swing to tuition-based revenue causes students to give even greater consideration where they will acquire their post-secondary education. Reed (2018) observes that the college market has shifted from a seller's market to a buyer's market as enrollment drives decisions, and students want

to see what they are getting for their money. Institutions are being pulled from every direction to ensure students are making the most of their educational experience and working toward obtaining credentials to successfully enter the workforce. To meet national goals of a more educated population and workforce, a number of efforts are underway to enhance student success and to boost college completion and student credentials. Guided pathways is one of these initiatives.

Review of Research Questions

Guided pathways present community colleges with an opportunity to systematically redesign the student experience in an effort to confront declining persistence and graduation rates. Research has shown that as it is currently designed, the community college environment is too difficult for students to navigate, which has led to calls for programs to be made simpler and more coherent (Scott-Clayton, 2011). Research has also indicated that passing gateway courses, along with early motivation, increase student likelihood of graduation (Attewell, Heil, & Reisel, 2012; Jenkins & Cho, 2012); developmental coursework can negatively impact student completion efforts (National Center for Public Policy and Higher Education, 2010); and early enrollment in a program of study with increased levels of structure and support, lead to higher rates of completion (CCRC, 2015).

While no single unit of a college is responsible for student retention and completion, student success initiatives are doomed to fail without solid engagement among faculty (EAB, 2016). Reform pertaining to curriculum, academic policies, advising, and transfer articulation all necessitate faculty willingness and participation, yet, many academic administrators neglect to involve faculty from the onset. Understanding what faculty need, what drives them, and what is necessary to implement change, helps better ensure faculty commitment and support and enhances the likelihood of change implementation.

The focus of this study is to elicit information from faculty in institutions that have been implementing guided pathways to gain insight to best practices to efficaciously implement change processes, in particular, guided pathways. The research questions this study seeks to answer are:

- To what extent did institutions incorporate Kotter and Senge's change strategies in their onboarding and implementation of GP?
- How did incorporation of Kotter and Senge's change strategies affect faculty receptivity of GP?

- How did the level of faculty receptivity and support impact the robustness of GP implementation?

Obtaining first hand experiences of the perceptions, concerns, challenges, work-through, and successes of faculty provides insight into and opportunity for suggestions as change processes move forward.

Literature Review

Over the years, there have been major and minor changes within higher education. The type of change that is needed in community college today, Phelan (2016) argues, cannot be supported by the leadership, organizational design, decision-making, board structure, systems, and processes that have worked in the past. Additionally, he contends, the incremental changes that took place over the last century are insufficient for even the next decade as higher education calls for change on a grand scale.

Institutional needs necessitate varying types of change and identifying and strategizing about these needs are imperative for successful change efforts. While sometimes referred to by different names, change theorists agree that there are three different categories of change: developmental, transitional, and transformational. Understanding the differences between these types of change helps to elucidate the magnitude of implementing the transformative change that is required of guided pathways (see Table 1).

Table 1. Matrix of the Three Types of Organizational Change

	Developmental Change	Transitional Change	Transformational Change
Degree of pain felt	1	2	3-4
Primary motivation	Improvement	Fix a problem	Survival: change or die; or Thrival: breakthrough needed to pursue new opportunities
Degree of threat to survival	1	2	1-4
Gap between environmental needs and operations	1	2	3-4

	Developmental Change	Transitional Change	Transformational Change
Clarity of outcome	4 It is prescribed against a standard	4 It is designed against criteria	1 It is not initially known; it emerges or is created through trial and error and continuous course correction
Impact on mindset	1 Little if any	1 Little if any	2-4 Forced to shift; old mindset and/or business paradigm must change
Focus of change	Improvement of skills, knowledge, practice, and performance	Redesign of strategy, structures, systems, processes, technology, or work practices (not culture)	Overhaul of strategy, structure, systems processes, technology, work, culture, behavior, and mindset
Orientation	To do better in a certain area: project-oriented	Project oriented: largely focused on structure, technology, and work practices	Process-oriented requires shift in mindset, behavior, and culture
How change occurs	Through training, skill development, communications, process improvement	Control process, support structures, timeline	Conscious process design and facilitations; high involvement; emergent process

Source: Anderson and Anderson (2001)

Types of Change

Developmental change**,** also referred to as ***transactional change,*** is incremental change that can either be planned or can be emergent. Developmental is the simplest of the three types of change with minimal impact on individuals. It includes improvements on or adjustments to existing and current operations. This type of change is motivated by a want to do "more of" or "better than" the current state. Its key focus is to improve upon what already exists (Ackerman, 1997; Anderson & Anderson, 2010). According to Anderson & Anderson, the process of developmental change keeps people motivated and challenged as they acquire new skills and strive to achieve higher levels of performance.

With developmental change, workflow variables are predictable and can be managed in regards to time and budget. Few risks and volatile variables are associated with this type of change. Additionally, there is little need for strategic guidance within developmental change processes. Communicating a case

for developmental change is a relatively simple matter and has a low threat level largely because this type of change addresses small gaps between the needs of the marketplace or environment and the current situation (Anderson & Anderson, 2010). Smyre and Richardson (2016) refer to this kind of change as reform, or incremental change, which they contend does not fundamentally change anything and can even "prolong problems and issues by masking an impending crisis" (p. 5). Main assumptions in developmental change include that all are capable of improving given the proper reasons, resources, motivation, and training (Anderson & Anderson, 2010).

Transitional change moves beyond enhancing what exists with a plan to replace the current state with something completely different. This type of change comes about because leadership identifies a problem, a missed opportunity, or because change needs to occur to meet current and/or future needs (Anderson & Anderson, 2010). In this transition state, old processes are undone, and an entirely new process is implemented over a period of time. Transitional changes generally have a specific timeline, requirements, utilize traditional project management approaches, are linear, predictable, and can be articulated prior to their implementation. Some strategic guidance of this state is necessary and critical (Beckhard & Harris, 1987), but its predictability requires minimal strategic direction to circumnavigate the change process.

Unlike developmental change, the human nature of transitional change often requires people gain more knowledge, learn new skills, and acquire new behaviors. Clearly communicating and paying attention to the impact of change on stakeholders, according to Anderson & Anderson (2010), greatly minimizes negative impact and alleviates people issues. They rationalize doing an impact analysis whereby leaders clarify the differences between the old and new state, determine their organizational and human impact, as well as the duration of the transition before building a strategy. Leadership within transitional change becomes more involved as governance structures specialize to focus on the operation or overall change strategy.

Transformative change is defined as "a radical shift of strategy, structure, systems, processes, or technology that is so significant that it requires a shift of culture, behavior, and mindset to implement successfully and sustain over time" (Anderson & Anderson, 2010, p. 60). Unlike developmental and transitional change, transformative change presents challenges because it is unable to be managed with

any type of predetermined schedule or linear plans. The future of transformation is unknown at the beginning of change. Although transformative initiatives can have an overall strategy, Anderson and Anderson contend that specifics materialize through trial and error as information becomes available.

Smyre and Richardson (2016) reason the necessity of clearing one's mind to allow emerging innovation of ideas, people, and processes and to create an environment such that there is total engagement and collaboration among those involved in transformative change in order to allow the transformational process to reach fulfillment. Smyre and Richardson contend that people need to be comfortable enough with uncertainty and ambiguity long enough to let innovation come and comfortable enough to challenge those who have a traditional mindset. They add that transformative change is not so much a choice as it is a requirement necessary to endure in our increasingly fast paced, interconnected, interdependent, and complex society.

Transformation requires a holistic approach entailing collaboration with all entities of an organization to plan, coordinate, and assess initiative outcomes. Given GP's holistic approach, it requires a multidimensional institutional response with everyone on the same page and ready for change. Since each area of a college plays an integral role in GP's implementation, an institution not only needs cross-campus acceptance, it needs all to be an integral part of the GP process. Unless those involved are of the change mindset, Fink (2013) contends, nothing significant can happen in regard to improving the quality of educational programs in higher education.

Cross-campus involvement is crucial to the success of GP, and the process to achieve this involvement requires thought and planning from those who will be involved in the process. Deciding who these people will be as well as the approach taken sets the course from day one and is a task that tends not to be straightforward given the unforeseeable nature of transformative change.

Who is involved in the change process depends upon what change model is used. There are many change theorists with proven change models and selecting the best model to implement the grand scale of change that GP necessitates requires thoughtful consideration. This research looks into the change management model of John Kotter, a model that employs a strategy used by the CCRC in guiding and assessing its efforts with GP. It also addresses how Peter Senge's systems thinking approach works in tandem with Kotter's change model.

Consensus Building

This research study also looks into the extent to which consensus building and faculty involvement play a part in the implementation of GP at the researched institutions. According to Burgess & Spangler (2003), "Consensus building (also known as collaborative problem solving or collaboration) is a conflict-resolution process used mainly to settle complex, multiparty disputes" (para. 1). While this definition may be true, it does not cover the full extent of consensus building (CB) applications. Consensus building provides solutions in problematic situations, and it can also be used as a disarming tool that can ultimately result in enhanced outcomes given its participatory nature and relief from sole responsibility from the results of trying something new (Managing Group, n.d.).

Different strategies for CB include ***Appreciative Inquiry, Systems Thinking,*** and ***Shared Vision***. Each of these approaches incorporates a group's efforts and shares similar tactics; however, given a leader's management style or the task at hand, one approach may prove better than another at a given time. This research study looks at the use or lack of use of various aspects of these consensus tools and the role they played in the success or complications of GP implementation at the researched institutions.

Appreciative Inquiry

Appreciative inquiry (AI) is a team effort using a philosophical approach to look at a situation through a variety of lenses to come up with consensual plan for effective change. AI is different than other organizational change methods in that it focuses on people as a whole, in an attempt to extract their strengths, possibilities, and successes (Stavros, Godwin, Lindsey, & Cooperrider, 2015). A goal of AI is to improve performance that is accomplished through a process that includes the following steps:

- Identifying the problem
- Elaborating
- Analyzing possible causes
- Generating solutions
- Implementing the best solution. (Townsin, 2013)

The strategy an organization takes when problem solving has a major impact on the solution, as do the culture and dynamics of an organization. If organizations work a problem with a positive attitude,

work will continue positively, aiding in increased creativity and productivity (Joseph, n.d.). Conversely, the qualities most needed for change: energy, motivation, and goodwill dissolve with a deficit attitude (Townsin, 2013). Root (n.d) states: "When negativity takes over, people tend to stay with proven methods for fear that something new may not be effective" (Creativity section, para. 2). Therefore, AI looks at problems from a positive view asking what is working, envisioning how good things could be, and then realistically decides how good things should be before committing to how things will be. Rather than reacting, AI enables proactivity looking at each step through a realistic lens.

Discussion regarding what is working facilitates further discussion and increased idea sharing. This process also emboldens team members as successful outcomes inspire members to try out new ideas rather than rely on others' thoughts. A group of collaborative thinkers is a catalyst to new ideas and solutions (Townsin, 2013). Additionally, the teambuilding, sharing, and camaraderie fostered within this environment build trust as a team works collaboratively.

Systems Thinking.

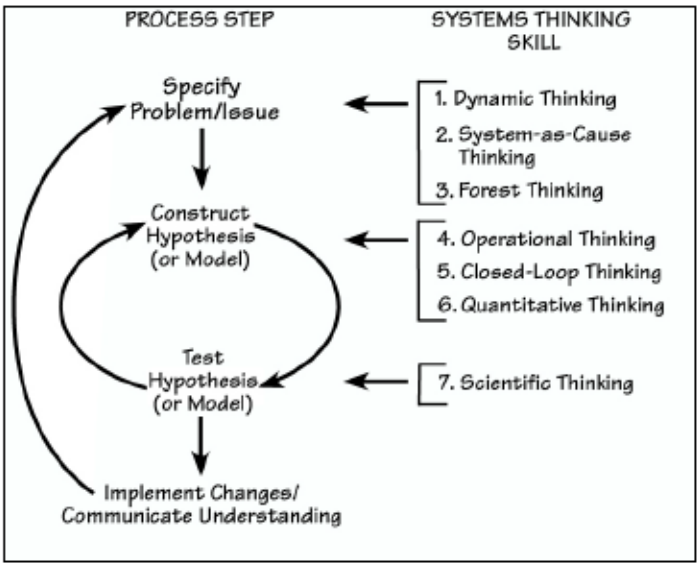
Unlike traditional analysis of systems, which evaluate each element of a system separately, Systems Thinking (ST) looks at the whole picture, exploring how individual parts work together as a whole over time, and how they interrelate with larger systems (Rouse, n.d.). Viewing a system from a broad view allows one to identify the true cause of an issue and to know where to go to fix it ("What is Systems Thinking", n.d.). Additionally, by viewing a system as a whole, issues can be identified and corrected throughout the system. This can be a valuable tool when working in higher education, as any change impacts various aspects of a college, and proactively identifying and accounting for these impacts can alleviate complications down the line. Furthermore, looking at the whole picture allows for the multidimensional approach required of GP. Identifying, solving, and rectifying issues is done by having those affected by the problem involved in this process (Aronson, n.d.). Characteristics of a ST approach include:

- Commitment to "real learning"
- Being prepared to be wrong and to mentally challenge oneself
- Triangulation, working collectively as a team to see more together than what can be seen individually. (Senge, 2011)

Systems thinking utilizes collective intelligence, working together with all those in a group allowing the team to move beyond conventional solutions to create change that is followed through from the beginning to the end (Senge, 2011).

Systems thinking, while it can be complex, can be reduced to relatively simple terms and broken down into 4 cyclical processes (see Figure 3), which include:

1. Specify the problem/issue
2. Construct a hypothesis/model
3. Test the hypothesis/model
4. Implement changes /communicate understanding



Source: Thesystemthinker.com. (n.d.)

Figure 3: Cyclical processes of systems thinking

Progression through these steps necessitates different thinking skills making a group effort most valuable as each member brings a different angle to the table. Skills 1-3 require more free-associating as they identify and pinpoint an issue. Skills 4-6 begin to focus in on how one issue affects others, how change implementation will be implemented, and how this implementation will ultimately affect the rest of the system. Finally, Skill 7 is applied as change is realized and assessed. It is after this point that results are communicated, evaluated, and further perfected.

Systems thinking adds value in situations when:

- Difficult problems involve many people, as it helps each person see the whole picture and not just their role in it;
- Reoccurring issues have become worse through attempts at fixing them;
- An action is either affected or affects the environment around an issue; and
- Issues' solutions are not obvious. (Aronson, n.d.)

Using ST allows an organization to work collaboratively, looking not only at the issue at hand, but all of the factors involved in causing it, all stakeholders affected, and all of the implications that need to be addressed along the way.

Shared Vision.

Shared vision (SV) is what a leader and the other members want to create or accomplish as a part of an organization. It is not mandated, rather created as a collaborate effort from creating common interests and a shared sense of purpose from members of an organization (Senge, 1990). Shared vision requires clear articulation of an idea to ensure that all involved are collaboratively working toward the end goal and know what role each plays in achieving the goal.

Formulating and conveying a SV is an attribute present in true leaders (Barnes et al., n.d.). When polled, 72% of respondents indicated that a top-ranking quality of a leader is being forward-looking; additionally, they want visions to reflect their own aspirations (Kouzes & Posner, 2009). Kouzes & Posner (2009) maintain that "the only visions that take hold are shared visions — and you will create them only when you listen very, very closely to others, appreciate their hopes, and attend to their needs" (para. 7).

Shared Vision can be broken down into manageable steps including:

- Clearly articulating the vision
- Aligning smaller goals to the shared vision such that individuals know their role in the system
- Reemphasizing the goal and the reasoning behind processes making sure that the team is holding true to the vision of the "product" and not the "project" (Fitzgerald, 2003)
- Encouraging teamwork and support as a part of the greater whole
- Learning from mistakes and moving on

- Celebrating each positive outcome, viewing the vision as a process, not just the end
- Utilizing the shared vision to create a culture of being, thinking, and doing together. (Thinking Senge: Creative Vision and Shared Tension, n.d.)

Leaders can use their role as an opportunity to help individuals reflect, learn, and grow allowing them to grow personally as well as a part of the team.

Shared vision is a group effort that requires foresight and organization. Its efforts go beyond individual departments creating teamwork throughout an organization as individuals identify their own purpose in relation to others. Shared vision generates a sense of commitment as well as encourages individuals to maximize their efforts to achieve a common goal (Why is Shared Vision Important, n.d.). As members commit to each other and the vision, they develop a level of trust in both what they are doing and where the organization is going. Utilizing SV allows a participative culture where everyone's ideas are encouraged and valued and can be used to move the organization forward.

Consensus building is a tool that successful leaders and their teams use to heighten intended outcomes. A variety of methods use this collaborative approach. Choosing the approach that best fits a leader's style or the situation at hand requires having a vision of where an organization is headed and transparency in communicating this vision. The success that comes from consensus building can be attributed to its collaborative approach involving all levels.

The Business of Higher Education

Throughout this research study, connections are made between the business field and higher education. Stoller (2014) remarks that in higher education debt is incurred in exchange for a valuable asset in the form of a degree, certificate, or badge. Admissions can be likened to a sales team selling and acclimating the customer by instilling excitement and reassurance that the right choice has been made. Student development can be equated to customer service, mainly in the form of counseling and advising, as this group is employed to ensure student persistence, retention, and engagement. The product presents itself in the form academic programs. Institutions must consistently ask, "Who Are We Serving?" if they are to remain competitive in today's increasingly diverse market (Norris & Barry, n.d.).

In his book, ***Academic Strategy,*** Keller (1983) compares higher education in the 1970s and early

1980s to now noting the ongoing transition in higher education to a business-like approach as it has integrated strategic planning in its educational and social mission. Marketing and advertising, financial aid negotiations, data analytics, high-level financial management, and competition with other institutions play a role they have not played in the past. Keller notes that, as colleges have become more systematic in their thinking, they have been better able to fulfill their missions and serve students in today's higher education market.

Similarly, Krouse (2018) draws parallels between higher education and business noting that as the divide between revenue and expenditures continues to escalate, competition for customers presents an increasing need to maximize marketing, social media, technology, and economics in order to stay in business. Krouse adds that institutions are employing new technological strategy in an effort to improve the student (customer) experience by embedding analytics to manage systems and support in real time, in an effort to maximize successful outcomes.

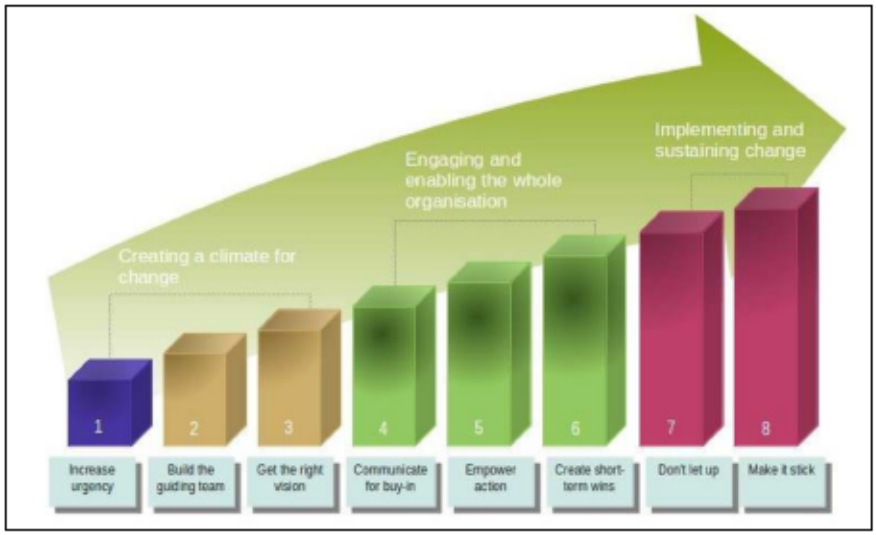
Change Models

As managing higher education increasingly parallels the business field, shifting to more strategic and systematic thinking, administration is called upon to rethink institutional approaches to meet these changes. This research study looks at change management and its emphasis on strategy and systems thinking with a focus on two change leaders, John Kotter and Peter Senge as their strategies relate to the transformative change taking place in GP institutions.

Kotter (2012) articulates the need for competitive strategy in today's market echoed by Phelan's (2016) call for change in higher education; both contend that incremental change processes that have worked in the past can actually thwart attempts to compete in today's marketplace as institutions increasingly need to stay ahead of the game. This can only be done, Kotter contends, by proactively identifying hazards and opportunities, creating innovative strategic initiatives, and implementing them swiftly. Smyre and Richardson (2016) reiterate this idea in their book, ***Preparing for a World that Doesn't Exist – Yet,*** advising that unless society continuously looks for the "weak signals" of oncoming change, people will be reactive and ill-equipped to achieve success in today's increasingly changing, interconnected, interdependent, and complex society.

John Kotter's Eight-step Plan.

Kotter (2006) lays out an eight-step plan to implement transformative change. He purports that most transformation efforts produce mediocre results or fail terribly. He adds that management often does not realize that transformation is a process which progresses over years through consecutive stages, and these stages cannot be skipped or rushed. When successful transformation takes place, he contends, it is because leaders have done eight things right, and they have done them in the right order (see Figure 4).



Source: Webster & Webster, n.d.

Figure 4: Kotter's Eight-Step Change Model

Step One: Establishing a Sense of Urgency. Successful change efforts come from individuals, groups, or departments evaluating a company / institution's competitive situation and realizing the need for change. In the case of higher education, the signs and need for change have become more eminent with each passing year as retention and completion rates decline and society cannot keep up with the needs of the workforce (Hussar & Bailey, 2011). Relaying urgency is essential for successful transition. Urgency, however, is frequently rebutted or waylaid because executives / administration:

- Cannot drive employees out of their comfort zone
- Rush the process overestimating a created sense of urgency
- Worry that senior employees will become defensive
- Fear that actions will spin out of control

- Anticipate decline in short-term business results; or
- Fear being blamed for causing crisis. (Kotter, 2006)

Kotter argues that these concerns can be mitigated by having less managers and better leaders strategically placed and working side-by-side with those affected by the change. Convincing people of urgency even though the status quo is working can be daunting but is necessary and requires appropriate resources and levels of management support at or above 75% to avoid major issues later on in the change process.

Step Two: Creating a Powerful Guiding Coalition. Building an effective coalition happens over time; however, a strong driving force sets the trajectory of a group's efforts. This begins with a shared commitment from executives as well as a group of others, optimally with powerful titles, expertise, reputations, and relationships, such as a union leader, who are committed to excellence through the renewal of the transformation at hand. Ideally, the coalition will steadily increase in numbers. The coalition generally operates outside of an institution's regular hierarchy, formal boundaries, and protocol. With an awareness of urgency, the coalition should assess needed change and establish strong trust through team building, open communication, and complete transparency as it continuously strengthens. Together the team needs to strategize, preparing for what will be done if/when short-term gains are thwarted or if opposition takes hold down the line.

Step Three: Creating a Vision. Envisioning the big picture is paramount to successful transformation and it should be appealing to stakeholders as well as being easy to communicate. A vision moves beyond the short term, expressing the direction in which an institution needs to move going forward. The vision becomes clearer over months as it is improved upon by the coalition. It is important that the coalition is afforded opportunity for creativity and dreaming so as not to stifle any innovation. Working through the vision also aids in development of a strategy. A sensible vision is key to ensuring that plans, directives, and programs are succinctly headed in the right direction, stakeholders stay focused, and that resources are allocated where they will be impactful. Kotter warns that if the vision cannot be briefly communicated and be received with understanding and interest, this step of the transformation is not completed, and improvement efforts are not ready to move forward.

Step Four: Communicating the Vision. Once step three is realized, the coalition's next step is to clearly and succinctly communicate the vision utilizing every venue available to reach every person possible. Transformation is only possible when the masses are willing to help and sacrifice for the sake of change, and they need to be convinced through an inundation of credible communication about a cause they can get behind and strongly support. Kotter cautions that gaining support can be difficult when downsizing is a result of a vision; and he encourages incorporating growth into the vision when possible as well as committing to fair treatment of those affected by change. Successful transformative efforts necessitate development of leadership and communication of the vision in the day-to-day, as these link initiatives and related activity back to the vision and its realization. Leaders should use all existing communication channels to achieve this. Additionally, leaders need to "walk the talk" and take on the desired institutional culture. Ongoing communication and behavior change consistently reinforce each other and aid in bringing about envisioned change.

Step Five: Empowering Others to Act on the Vision. An increase in the number of followers emboldens employees to experiment with new ideas, approaches, and to take on leadership roles. Emboldened leaders work within the perimeters of the vision to remove obstacles allowing the coalition to forge ahead with innovation. Some obstacles leaders might face include:

- Narrow job categories that undermine efforts to increase productivity or think outside the box
- Compensation and/or performance-appraisals which may cause making a choice between the new vision and one's self-interest
- Superiors who are averse to change or make demands which conflict or undermine with the overall effort.

Not identifying and removing obstacles will likely result in disastrous outcomes and cessation of change efforts. Kotter notes that organizations will not have the momentum, power, or time to eradicate all obstacles within the first half of transformation but must be vigilant and do so with big barriers in order to empower others and maintain the credibility of the change efforts.

Step Six: Planning for and Creating Short-Term Wins. In an extensive analysis of diaries written by knowledge workers, Amabile and Kramer (2011) note their discovery of the ***progress principle,*** which states that making progress in meaningful work is the single biggest contributor to motivation, emotions,

and perceptions on any given workday, and more frequent sense of progress likely will result in long-term creative productivity. Kotter cautions that transformative change takes time; thus, celebrating short-term efforts aids in strengthening momentum when there are lulls in the process. It is essential to keep people involved, realizing ongoing accomplishments to keep coalition members from joining up with those whom have resisted change. Creating short-term wins requires planning and goal setting with short-term improvements and accomplishments worked into yearly plans. Short-term wins boost credibility of the change process and provide renewed energy that change is going as planned. Kotter contends that committing to short-term wins maintains urgency and forces analytical collaboration necessary for clarification and revision of the vision.

Step Seven: Consolidating Improvements and Producing Still More Change. While celebrating short-term wins is essential to keep people motivated, declaring victory can be catastrophic. Kotter warns that transformative change requires a culture change, which can take as many as five to ten years to happen, and until there is a complete culture change, the new ways are fragile and can easily fall into regression. Rather than declaring victory, leaders need to capitalize on small successes in an effort to tackle even bigger issues and to keep change in motion and motivation high. It is at this stage that leaders can use the credibility coming from change efforts to make changes in policies and structures that do not fit into the new system. Additionally, it is important that leadership pays attention to hiring and personnel to ensure that employees who can support the vision are developed to do so as well as to take on new initiatives. Additional projects that emerge from successful change efforts, Kotter reports, tend to peak around three years once a project starts showing signs of wins. This is an optimal time to initiate larger change efforts.

Step Eight: Institutionalizing New Approaches. One of the reasons that change takes so long to take hold is because those opposed to change continuously look for reasons to go back to the old way of doing things. Gleeson (2017) purports that this can be avoided with continuous and extreme transparency whereby leaders continually break down silos through communication of the vision and collaboration on how to get there. Kotter concurs stating that change sticks when it becomes “the way things are done around here” and new behaviors are rooted in the social norms and institutional values. The way to make this happen, he contends is by constantly and consistently utilizing every institutional venue for

communication to demonstrate how new approaches, mindsets, and actions have helped improve performance. Kotter adds that the next generation of leadership must ensure that the values and new approaches are engrained in the day to day. Leadership turnover in higher education happens frequently; thus, it is imperative that boards of directors are an innate part of change efforts and keep them going with successive leadership.

In his book, ***Accelerate***, Kotter explains how existing structures and processes need an additional element to deal with the challenges and intricacy of rapid change, offering a second operating system which overlays the change process. Such a system would be constantly and consistently identifying threats and opportunities and creating strategic initiatives to deal with these head on. Smyre and Richardson (2016) recommend similar strategies stating that institutions are in constant state of change, and leaders should always be on the lookout for weak signals and deal with them proactively.

> Weak signals are emerging ideas, inventions, discoveries and innovations that are not yet trends, but have the potential to impact local areas within three to five years. Weak signals can inform a process through which learning is focused on adapting to a different future. (Smyre & Richardson, 2016 p.101)

Kotter's system overlay functions to continuously evaluate an organization, enabling it to respond, he says, with greater agility, innovation, and speed because it complements the existing structure and is able to optimize its solutions. With this second operating system, optimal operating has less bureaucracy, fewer layers and fewer rules, as well as more discretion for those who are lower in an organization's hierarchy. These conditions are optimal for using consensus tools.

Peter Senge's Principles of Systems Thinking.

These same proactive and cooperative concepts are seen with Systems Thinking (ST) mentioned earlier in this chapter, as this process evaluates the whole picture, looking for signals, issues, and opportunities where systems can be optimized. Organizational change expert, Peter Senge (2014) likens a system to a family whereby each person is in some way interdependent on another and the complexity of each interaction affects the system. ST supports each system within an organization illuminating how each fit together or needs correction in order to alleviate foreseen complications. ST encourages group members to think outside the box enabling collaboration from all aspects of an organization to find the best answer to any problem. Understanding vexing issues and working issues within a group, Senge contends,

enables solutions that otherwise may not come about.

Using ST goes beyond understanding and working issues, this type of collaboration affords groups the opportunity to hypothesize, create solutions, test solutions, and implement change. ST corresponds with Kotter's eight steps requiring the need for clear communication at the center of each step of the process. ST delves deep into the process creating an environment where those involved use a multidimensional approach to problem solving, challenging each other, and providing greater fail-safe solutions through triangulation of efforts and results (Senge, 2014).

Russell (2013) states that whether people accept change often depends on how it is communicated, and that people want control over change. Senge notes that "People don't resist change. They resist being changed!" (Goodreads, n.d.). Senge explains that employees may not mind change, but they want to be involved in the change process, and he encourages the use of ST to engage employees as well as combine their strengths to formulate optimal solutions.

Change Resistance Factors

Resistance to change as defined by Caruth & Caruth (2013) is "observable behavior in response to the disagreement or challenge felt as a result of the introduction of new ideas, methods, or devices" (p. 13). Resistance to change, according to Clarke, Eliott, Bateman, & Rugutt (1996) consists of both blatant and hidden actions which are used to prevent, interrupt, or damage successful implementation of change. Much research has been done in regard to change resistance, and more specific to this research, the tendencies for those in higher education to oppose change. There are many thoughts on and reasons why people oppose change. According to Lane (2007), causes for change resistance include perception that one's professionalism is in question, lack of communication, fear, minimal perceived value of impending change, and the effect change has on one's time and workload.

Challenges to Professionalism.

Resistance to change in higher education generally results from the feelings that faculty professionalism is being questioned or changed (Caruth & Caruth, 2013). Zell (2003) notes that professors tend to exude a passion for their subject, having dedicated vast amounts of time, effort, research, thought, and preparation into their subject matter. Thus, a call for change can be construed that

the current way of doing things is faulty (Guze, 1995). DeGraff and Quinn (2006) contend that, "the more significant the transformation, the more likely there will be greater resistance from key stakeholders" (p. 8). Faculty's strong convictions and ideas, coupled with the fact that professors, not administration generally control basic academy practices, causes difficulty with significant change implementation when professors are involved (Caruth & Caruth, 2013).

Lack of Communication.

A study by Qian (2008) that explored workplace cynicism noted that communication plays a key role in the effect on cynicism as it relates to organizational change. Cynicism plays a major role in creating a barrier to change and can come from different places. Negative attitudes contributing to employee cynicism resulted from a belief that employers were not completely honest; and distrust toward the employer led to a proclivity to demean and criticize the employer. Qian notes that day-to-day cynical workplace communication can have an influencing and contagious effect and is likely followed by resistance. Kotter supports this finding and asserts that ongoing communication, involvement, and affirmation of accomplishments are necessary to bond coalition members and to prevent their uniting with cynic groups that can negatively thwart progress (2006).

Conversely, meeting with individuals, communicating the vision and goals, the good and the bad, and the individual impact change will have on each employee helps to build trust (Roberts, 2018). Roberts adds the importance of including the "what's in it for me" factor. Fuller's Concerns Theory reaffirms Robert's point. Evans and Chauin (1993) reference Fuller's stages of concern, noting that individuals need to work through their own concerns relating to self, task, or impact, before addressing concerns which would allow one to effectively collaborate and share ideas for the good of the vision and goals.

Fear.

Another contributing factor to change resistance is fear of instability and uncertainty (Lane, 2007). Change brings about instability (Anderson and Anderson, 2010). While it can be argued that there are direct steps taken in transformative change (Kotter, 2006), Fullan (2003) denotes change as a complex, dynamic, and non-linear course which most shy away from. Anderson & Anderson (2010) concur, describing transformative change as being so different from the original state that one cannot imagine the

end state. Loss of current status can be added to the list of fears resulting from change as change instills a sense of loss for the past and brings on anxiety for the future (Marris, 1975). Additionally, Lane (2007) contends that groups fear the loss of tradition and symbolism as change is implemented.

Minimal Perceived Value of Change.

Change implementation provokes individuals and groups to assess its value. Marris (1975) contends that change causes individuals to weigh their sense of loss for the past against brought on anxiety about the future. In addition to anxiety, McBride (2010) discusses the emergence of skepticism toward change from failed previous attempts at change. Similarly, Salaman (2017) lists initiative fatigue and unproven results as reasons faculty are hesitant to jump on the GP bandwagon. She adds that individuals recognize that GP change is high-risk, politically uncertain in comparison to educational redesigns of the past, and risky due to the expansiveness of the project. In addition to individual evaluation, changing the status quo brings institutional issues to the forefront including choices about curriculum, college priorities, resource allocations, programs and services, and how faculty associations and bargaining units will lead and contribute to the redesign of students' educational experiences (AACC, 2012).

Effect on Individuals.

Lane identifies time, workload, and compensation as major contributors to faculty resistance to change and notes that resistance is influenced by an individual's available time and energy (2007). These aspects, Lane notes are exasperated when learning required for change detracts from other factors that may impact one's evaluation and rewards. Sirkin, Keenan, & Jackson (2005) warn that when implementing change, increasing one's workload by more than 10% risks declining morale, fatigue, and increased tension between employees.

Faculty Engagement

The Public Agenda has done extensive research showing the critical nature of faculty engagement in implementing successful institutional change within community colleges. Utilizing years of research, The Public Agenda and Achieving the Dream (ATD) (2011), published a series, ***Engaging Adjunct and Full Time Faculty in Student Success Innovation***, to be used by institutions to aid in

increasing faculty engagement efforts in student success change initiatives. The series lays out a five-step process emphasizing the necessity of faculty communication, collaboration, and engagement institution-wide and across departments to break down silos, team together, and use data to improve institutional efforts with student success initiatives.

The steps are:

1. Commit to institutional change and improvement
2. Use data to identify gaps, assets and obstacles relevant to student success and to prioritize actions
3. Deign practices/policies
4. Implement, evaluate, and improve practices/policies
5. Sustain, continually improve and validate practices/policies. (Public Agenda & ATD, 2011, p. 8)

This series emphasizes the value each faculty member brings to the table and stresses the importance of incorporating suggestions and equally integrating adjunct faculty in the change process. The steps in this series incorporate aspects of Kotter's change theory and Senge's ST approach. The Public Agenda and ATD recommend contemplating faculty engagement through the frame of a change process and considering how specific faculty engagement practices would best aid change throughout different stages in the change process. They further endorse college leadership using these approaches as leadership engages in strategic decision making about how to constructively engage faculty as partners in institutional change to positively impact student success.

Necessary Change Factors

As noted by Kotter and Senge, collaboration, communication, transparency, and trust are common themes surrounding discussion on transformative change within business; the same ideas are evident in higher education. Bailey, Jaggers, & Jenkins (2015) refer to these factors throughout their research and in their book, ***Redesigning America's Community Colleges: A Clearer Path to Student Success.*** The status quo in higher education's fragmented governance system, they contend, calls for greater collaboration. These researchers point out the divide between administration and academic

governance bodies, student services and faculty, and even faculty and faculty, stating that faculty is even further divided institutionally by divisions and departments. They write that cross-functional teams coupled with the use of inquiry have been shown to be successful in better uniting this divide.

Baily, Jaggers, and Jenkins (2015) further note that trust is a major contention between divided areas of a college, and they emphasize the importance of discovering and highlighting common values and goals in communication and planning efforts. They note that relational trust is a key element in successful improvement efforts because it emboldens risk taking and innovation, enables problem solving, and encourages faculty to work toward mutual goals (Bryk & Schneider, 2002).

Communication plays dual roles. In addition to being a factor of employee resistance, it is also the primary means to inform faculty about the need for impending change and should be delivered cautiously and intentionally ensuring that the right information is transmitted. Not communicating effectively, according to Phelan (2016) and Kotter (2006), strengthens resisters and creates a lack of trust from the onset. Contrariwise, utilizing every mode of communication possible to be as transparent as possible is paramount to successful change strategy (Kotter, 2006). Transparency goes hand-in hand-with communication and trust and is another major contributing factor to successful faculty onboarding to change. Bailey, Jaggers, & Jenkins (2015) caution administration that transparency is vitally important and should be carefully noted in relation to budgeting.

Summary

Higher education in America underwent major change after WWII. Since that time, education has made changes to meet demographic needs, but overall, has remained relatively static in educational delivery. Graduation and retention rates are not keeping up with an increasing global economy and societal needs; thus, current events and trends are once again putting pressure on higher education to make significant change.

The type of change needed in higher education today is transformative, requiring thoughtful multidimensional strategic planning moving beyond just administration to involve all stakeholders within a college. Because faculty support is paramount to successful change transformation, identifying what engages faculty best is crucial to successful change efforts. Noting factors that may cause faculty to resist change and preemptively dealing with these factors could likely be the best source of their alleviation.

The business field has been increasingly compared higher education, especially in regard to integrating strategic planning in an institution's educational and social mission. Given the similarities between the two entities, change strategies that have been successful in business have been shown to be similarly effective in higher education. Kotter's eight-step change process and Senge's systems thinking approach incorporate proactive and cooperative approaches necessary to engage faculty in successful change efforts. Kotter and Senge's approaches address factors found to cause resistance among employees affected by institutional change. Looking at what researches say is necessary for successful change along with what has been shown to be successful with past change can be used to evaluate best practices and identify deficiencies in transformative change implementation in regard to guided pathways projects in higher education.

Chapter Three: Research Design and Methodology

Introduction

This chapter focuses on the design and criteria for this study. The purpose of research design is to create a strategy that coordinates all components of a study in a coherent manner providing structure for data collection, measurement, and analysis of data necessary to address the research problem. Inclusion criterion for a study is a predetermined set of participants' characteristics that will allow their participation to be of worth to a study. The research purpose and driving questions are the determinants of participant criterion. The purpose of this research was to identify the extent to which the presence or absence of change strategies impacted faculty support of GP. Therefore, a qualitative approach was utilized due to the need to garner information from participants' personal experiences and insights. This chapter defines and provides the justification for this study's: (a) qualitative paradigm, (b) case study methodology, (c) site and participation selection, (d) data collection protocol, (e) data analysis procedures, and (f) trustworthiness and validity as it relates to this research.

Restatement of the Problem

College completion rates have not kept pace with the dynamic needs of today's workforce. As community colleges adapt to prepare students to meet these needs, they must change current practices to ensure student persistence and completion. Faculty support of proposed change, however, is imperative for successful change to occur (Zell, 2003).

Restatement of the Purpose

The purpose of this research was to identify the extent to which change strategies impacted the degree of faculty involvement in GP initiatives. Bailey, Jaggers, and Jenkins (2015) discuss challenges that need to be overcome when implementing change, but there remains a dearth of information about what to do when change attempts fail. The research in this study was intended to shed light on what practices have been successful and the practices that should be prevented regarding faculty involved in

implementing pathways. The overarching questions to be answered were:

1. To what extent did institutions incorporate Kotter and Senge's change strategies in their onboarding and implementation of GP?
2. How did incorporation of Kotter and Senge's change strategies affect faculty receptivity of GP?
3. How did the level of faculty receptivity and support impact the robustness of GP implementation?

Finding the most effective means for faculty support and engagement requires gaining perspective from those who have experienced pre-and post-pathways change. The findings of this study can be used by community colleges as they implement the change necessary to remain competitive and promote student success in higher education.

Research Design

Selection of an appropriate paradigm is vital as it sets the framework of the research and its methods. The paradigm is the lens through which research is viewed and profoundly influences the research design. The purpose of this research was to identify the extent to which change strategies impacted the degree of faculty involvement in GP initiatives. Finding the most efficacious approach to obtain faculty support and engagement required understanding faculty views, what they deemed most important, and the account behind these thoughts. Given the newness of GP programs, little research has been documented regarding faculty perception of GP program implementation. The qualitative paradigm best lent itself to a more emic approach most suitable for garnering this information from those involved in the study.

Unlike pure research, where data collection is used as evidence to assign value to something to make decisions (Patton, 2015), applied research, the type of research done in this study, is utilized to improve the practice of a particular discipline, and is based on the belief that knowledge is created by people and is ongoing as they make meaning out of their experiences, activities, or phenomenon (Merriam & Tisdell, 2016).

Evered and Louis (1981) simplify the concept of what distinguishes quantitative research from qualitative research by stating that quantitative research is "inquiry from the outside" while qualitative is "inquiry from the inside" (p. 385). This study sought to gain insight from the "inside" perspective of the

faculty. In other words, the researcher gained insight into the participants' perceptions and idiosyncrasies that were of great significance to this study. The perceptions and first-hand experiences of faculty hold the key to the data necessary to implement successful change. Not only do faculty supply necessary data, they are responsible for implementing the change. Since faculty are the front-line to students, interact with them the most, and are in a position to identify signs of students disengaging, they are in a good position to intervene and positively affect the course of student success (Pattengale, 2010).

Moreover, this study used qualitative research because this type of research lent itself to unmeasurable data concerning the interactions, experiences, perceptions, and processes affecting pathways implementation (Merriam & Tisdell, 2016). Merriam and Tisdell explain that the purpose of qualitative research is to look for generalizations that can explain a phenomenon. Connecting and generalizing different faculty experiences with GP implementation provided valuable information for successful program application going forward. Creswell (2009) describes characteristics of qualitative research methods that were utilized in this study, noting that:

- Research is usually done in the field with direct contact with the person being studied.
- The researcher completes all data collection, interviewing, and observations first hand.
- Multiple sources of data are preferred over a single source; this requires the researcher to review all data, make sense of it, and organize it into categories or themes that cut across all sources.
- The researcher utilizes an inductive approach.
- The emphasis is on the participant's meaning.
- Research is active, changing as information is gathered.
- The researcher interprets the information.
- The researcher generalizes data to explain a phenomenon.

Denzin and Lincoln (2013) maintain that "Qualitative researchers study things in their natural settings, attempting to make sense of, or interpret, phenomena in terms of the meanings people bring to them" (p. 3). Qualitative research also seeks to obtain culturally specific information including values, opinions, and behaviors of certain populations and allows the flexibility to probe initial participant responses for clarification and deeper meaning.

This study sought to interpret faculty perception and receptivity to change strategies and to identify the extent to which change strategies impacted the degree of faculty involvement in GP initiatives. According to Creswell (2013), one's realty is formed from the meaning individuals take away from an experience. Understanding how people interpret their experiences, construct their world, and apply meaning to experiences lends itself to an interpretative paradigm. Interpretative research accepts that reality is socially constructed and that there are multiple realities of a single event (Merriam & Tisdell, 2016). These authors further contend that "researchers do not find knowledge; they construct it" (p. 9). This research utilized the interpretative paradigm as it sought to depict participants' viewpoints through their own voices.

Additionally, this research provided an opportunity to examine the steps that colleges employed as they implemented pathways and can serve as a guide for other colleges that intend to implement similar change programs. Due to the complexity of the information sought in this study, its personal nature, open-ended questioning process, and absence of a specific identified variable, qualitative research provided the most effective means to obtain the data required.

Case Study Methodology

Qualitative research lends itself to various methods of inquiry. The methodology utilized in this research was that of a case study. Defined as "an intensive, holistic description and analysis of a bounded phenomenon such as a program, an institution, a person, a process, or a social unit" (Merriam, 1998 p. xiii), this research used case studies to explore the faculty, events, and relationships between areas of the studied colleges to observe how their institutional practices affected faculty in the implementation of GP. Yin specifies (2003) that a case study should be employed when: (a) the focus of the study is to answer "what," "how," or "why" questions; (b) the researcher cannot manipulate the behavior of those involved in the study; (c) the researcher wants to cover contextual conditions because they are relevant to the phenomenon being studied; or (d) the boundaries between the phenomenon and the context are unclear. This study's focus sought to identify "how" institutions incorporated change strategy into their implementation of GP as well as "how" these change strategies affected receptivity toward change. Additionally, this research aimed to ascertain "how" faculty receptivity and support impacted the robustness of GP implementation. The researcher's purpose was to report, not influence

participant input. It was through participant input that the researcher aimed to understand the contextual conditions surrounding the observed institutions.

Notable aspects of this study included faculty perspective of institutional leadership, processes, and the degree by which faculty were involved in the development of processes as they related to the implementation of GP. This study observed how the culture of an institution can affect faculty who are ultimately their institution's first line to students and who are in a position to best support or thwart the success of change (Bloemraad, Dunlap, & Han, 2015). Since those involved in change need be on the same page for significant change to happen (Fink, 2003 & Kotter, 2006), understanding what faculty value and perceive necessary to the student experience is imperative to ensure consensus on pathways projects. For the aforementioned reasons, according to these qualitative research authors, case study methodology was conducive to providing the information sought in this study.

Sampling Procedure

Site Selection

This study employed critical case sampling, a strategy that ensured purposeful samples from select cases. Critical cases provide conditions that can illuminate a particular point of interest or are particularly significant in the scheme of things (Patton 1990). Patton defines critical case sampling as selecting samples that can clearly make a point or are specifically relevant. He further contends that this type of sampling lends itself to generalizability and transferability such that "if it happens there, it will happen anywhere, or vice versa, if it doesn't happen there, it won't happen anywhere" (Patton, 1990, p. 174). Patton surmises that if one group is dealing with problems, that one can be sure that all the groups are having problems. Critical case sampling presents itself to logical generalizations that can be made from the rich information that can be found in this kind of sampling.

What made critical case a purposeful choice of sampling was that this study looked at institutions that instituted a specific program, Guided Pathways. As other institutions consider implementing GP, it would make sense to study institutions that have already gone through the process, dealt with faculty concerns, and can speak to what has or has not been successful in gaining faculty support. This study aimed to supply data that maintains transferability to other institutions, a necessary attribute to qualitative

sampling (Miles & Huberman, 1994).

The main focus of this study was to gain input and understanding from a faculty perspective from institutions that had implemented GP. Selection criteria for this study was specifically designed to identify colleges that were under the guidance of an overarching support system and adhered to elements of the GP program as defined by the AACC. Both of the researched institutions belonged to their state support system, the Community College Organization for Student Success (CCOSS) (pseudo name), a Mid-western state organization that provides state-level support to the state's numerous community colleges. It connects leadership, administrators, faculty, and staff in their efforts to improve student outcomes by sharing practice, research, and policy between institutions. This organization played an integral role in providing and interpreting data from its GP colleges. The CCOSS also collaborated with the AACC, receiving guidance in regard to its GP initiatives.

In addition to working with the CCOSS, one of the researched colleges was a part of the original cohort of thirty GP colleges working with the AACC in its Pathways Project. Both the CCOSS and AACC collaborated with the CCRC, an organization that is instrumental in providing guidance and monitoring concerning GP programs and which guides institutional programs to help ensure a greater impact on results. Given the collaborative process and institution-wide reach of GP, this study interviewed faculty from different areas of the researched colleges as well as those with part-time/adjunct and full-time employment status. Multiple perspectives were sought to ensure data which best addressed the driving questions of this study.

Participant Selection

This study used criterion-based sampling as it required information and perceptions from a particular demographic to provide the most relevant findings. Patton (2015) as well as Merriam and Tisdell (2016) maintain that purposefully selecting a sample from which one can discover, understand, and gain the most insight is an effective method in sample selection. Patton (2015) further notes that qualitative purposive sampling enables "information-rich cases" (p. 53). This study utilized non-probability sampling as it sought to discover participants' perceptions and thought processes and to examine the relationship between participants' views and the effectiveness of implementing GP at the researched institutions. According to Creswell and Plano Clark (2011), purposive sampling involves identifying and

selecting participants who have knowledge about and experience in the area of interest. Additionally, Bernard (2002) notes the significance of selecting participants to interview who are both available and willing to participate and can disseminate information in a reflective and informative manner. Therefore, purposive sampling was used to help ensure information-rich and willing participants who could contribute useful data for the study.

This study employed snowball sampling, a popular method of purposive sampling by which key participants refer others who fit a study's criteria (Merrriam & Tisdell, 2016). According to Patton (2015), "By asking a number of people who else to talk with, the snowball gets bigger and bigger as you accumulate new information-rich cases" (p. 298). Once key interviewees were identified and interviewed, they were asked to identify other faculty who fit the study's criteria and would be willing to share their experience with GP.

Participant selection criteria can be further narrowed to provide deeper, more purposeful sampling within the case using tiered sampling (Merriam & Tisdell, 2016). In addition to faculty who had been at an institution through implementation of GP, an additional perspective could be gained from faculty who worked in the same institutions but worked in different departments. Specifically, the sampling selection for this study included three to five faculty members at each of the two institutions. These faculty had been involved in traditional academic programs including math, English, philosophy, and health careers as well as programs initiated as a result of GP and programs that may not have been included within the mandatory coursework for GP, such as First-Year Seminars (FYS) and advising.

The participants selected for the study included community college faculty who had taught at their institutions prior to introducing pathways, throughout its implementation, and had remained to see the first two cohorts complete the program. This criterion better ensured that participants had exposure to the experiences this study sought to understand. Additionally, it allowed participants the opportunity to express their thoughts or attitudes over the course of pathways implementation and provided greater detail in the interview process. Finally, this group's knowledge permitted the interviewer to gain insight from different points in time from before the start of implementation through post-implementation of pathways.

Instrumentation and Data Collection

Unlike quantitative research that emphasizes objective measurements and utilizes statistical, mathematical, or numerical analysis of data collected, qualitative research highlights contextual conditions including the social, institutional, and environmental conditions that people interact with and may be strongly influenced by (Patton, 2002). It is these contextual conditions that this study was most interested in, specifically the social and institutional conditions at the observed institutions. This study collected data from two primary sources: semi-structured interviews and field notes.

Semi-structured Interviews

This study employed a semi-structured interview method within an interpretative model. Semi-structured interviews allow the researcher to find out what is "in and on someone else's mind" (Patton, 2015, p. 426.). This type of interview can uncover participants' descriptive data or personal experiences and move dialogue from general discussions to gain more specific insights. Semi-structured interviews use open-ended questions to gain participants' perspective and allow opportunity for large amounts of data for future analysis (Research Rundowns, n.d.). Additionally, semi-structured interviewing enables the gathering of reliable and comparative data and provides an opportunity for alternative viewpoints and understanding. This format provides opportunity for the researcher to respond to the topic at hand and direct the conversation as the respondent's views emerge often opening the door to more in-depth discussion on a subject (Merriam & Tisdell, 2016).

Field Notes

The researcher's written account of an observation constitutes field notes providing raw data for a study and can include the "researcher's feelings, reactions, hunches, initial interpretations, speculations, and working hypothesis" (Merriam & Tisdell, 2016, p. 151). Descriptive notes from meetings allow one to understand what happened and how it happened, and often uncover behaviors that participants may not be aware of. Additionally, they can aid in explaining feelings and behaviors that may contribute to research findings (Brikci & Green, 2007). Thus, in addition to transcriptions of interviews, care was taken in this research to detail participants' non-verbal cues, willingness, and openness to discuss their account on GP implementation at their respective institutions in an effort to capture specifics and well-rounded participant perspectives.

Data Collection Pilot

Before the researcher conducted an interview, the researcher piloted each step of the process to ensure clarity, transparency, consistency, and to safeguard that a clear audit trail was being kept. Cautiously vetting and piloting all research questions and steps allowed the researcher to test and refine parts of the research study, working out any issues with questions and/or processes before proceeding with the study's research.

Prior to IRB approval, the interview questions for this study were reviewed by two faculty members at an institution currently implementing GP to ensure that the questions were coherent and adequately allowed for open-ended and expansion on responses. The researcher then piloted the interviews with two different faculty members at a GP institution to ensure that the questions allowed adequate time for elaboration on responses while staying within the one-hour time allotted for each interview. The result of these activities showed that the participant contact protocol was sufficient and minor adjustments were made to the process to proceed with the study. The data collected from this pilot study was destroyed.

Data Analysis

To identify best practices in the implementation of GP, the researcher established a plan for processing and analyzing data to ensure that all the necessary information had been collected in a standardized manner. Theming, coding, data cleaning, charting, and mapping were methods that were utilized as the researcher moved through five stages of qualitative research: (1) becoming familiar with the data; (2) identifying the thematic framework; (3) indexing data; (4) creating a charting process; and (5) mapping and interpreting the data (Pope, Ziebland, & Mays, 2000). These methods were used to analyze, describe, summarize, and interpret the data as it was collected and to answer questions as they arose in light of research.

Data analysis cannot be distinguished from data collection; they happen simultaneously in a recursive and dynamic process as data emerges, essentially calling the next shot (Merriam & Tisdell, 2016). Creswell (2007) contends that during data analysis, the researcher "engages in the process of moving in analytic circles rather than using a fixed linear approach" (p.150). Throughout this qualitative study, an inductive approach was utilized to assess data gathered through case study interviews,

observations, and field notes in order to analyze them and turn them into meaningful findings. Theming, coding, data cleaning, charting, and mapping were used simultaneously throughout these stages to constantly compare and connect newly collected data to existing data at each step of the process.

Familiarization Stage

During the process of familiarization, Bogden and Biklen (2011) suggest forcing oneself to narrow the study, weeding out irrelevant questions, and focusing on the study's purpose. This stage involves constant memoing, studying notes, and complete immersion into raw data in order to detect themes within the data. The researcher read and reread transcripts and field notes as data was collected to both analyze, reflect, note ideas, hunches, or themes as well as decided what needed to be added or subtracted in subsequent interviews. This process of ***theming*** was repeated throughout the study making comparisons after each new unit of information was introduced.

Identifying a Thematic Framework Stage

Identifying a thematic framework involves uncovering, labeling, and describing general themes that are responsive to research questions (Merriam & Tisdell, 2016). These themes, which are found in words, feelings, phenomena, and draw on ***a priori*** issues and questions that are brought to the study, were examined and organized into workable pieces or units for future retrieval and research. According to Lincoln and Guba (1985), research units must have two criteria. First, the unit should reveal something about the study and should be exploratory, inciting the reader to look beyond the unit of information at hand. Secondly, it should be a simplistic, independent piece of information that can be interpreted on its own, without additional explanation beyond the context of the study. An example of one of these units, as it pertains to this study was ***professionalism,*** denoted as faculty took on leadership roles and worked collaboratively to structure strategy. Such a unit can be identified as its own bit of information and would stimulate the reader to delve into the factors that may enable professionalism within the participant.

Indexing Stage

Indexing consists of systematically applying the thematic framework or a key to the data collected through the use of ***coding*** in order to designate some sort of short-hand labeling system to varying aspects of data to ensure easy retrieval. Coding should be done with each interview, set of field notes,

and documents (Merriam & Tisdell, 2016). Utilizing ***open coding*** and capturing all pertinent data, especially at the beginning of the research process, helped ensure that any pertinent data was being captured.

As each participant was interviewed, each set of data, including transcripts, field notes, and other observations were compared to previous interviews making connections and refining categories with ***axial coding.*** This type of coding moves beyond descriptive coding, to "coding that comes from interpretation and reflection on meaning" (Richards, 2015, p. 135). Since much of this study relied on faculty perception, experience, and feeling, axial coding proved to be a major source for data findings. Copious notetaking and running lists were imperative to compare each set of data to the next. Due to the amount of data that was generated, ***data cleaning*** was crucial to eliminate irrelevant information as findings became clearer and allowed the researcher to form a clear picture of data categories and each category's subsets. When analyzing data, Merriam and Tisdell (2016) list four criteria for categories, themes, and findings stating that they must be:

1. Exhaustive — containing enough categories to cover all the data;
2. Mutually exclusive — each unit of data can be placed in only one category;
3. Sensitive — the naming should be very specific to the data; and
4. Conceptually congruent — all of the categories are equally abstract.

Merriam and Tisdale (2016) further contend that these criteria must be responsive to the research questions. Coding was done in conjunction with data collection searching for categories and connections. This information was further revised and reconfigured as the study progressed and the data was analyzed.

Reading and Memoing (Charting Process Stage)

Charting is "rearranging the data according to the appropriate part of the thematic framework to which they relate, and forming charts" (Pope, Ziebland, & Mays, 2000, para. 12). This process requires a considerable amount of abstraction and synthesis. Merriam and Tisdell (2016) note the importance of linking conceptual elements together through models to look for relatedness and interaction between findings. They further contend that this method is especially useful when category schemes are not

coming together. Reducing, refining, and linking the categories moves the analysis toward developing a model or theory (Merriam & Tisdell, 2016). It is these charted categories that ultimately become the findings of the study. This process was employed as themes emerged; categories and schemes were linked further exemplifying their interdependence.

Describing, Classifying, and Interpreting Stage

The mapping and interpretation stage of the study's framework tests tentative category schemes against the data, moving from inductive toward deductive reasoning. This stage uses the study's charts to find associations between the themes and to explain the findings. This process is influenced by the study's purpose and questions along with the data that has emerged throughout the process. It is during this stage that the researcher analyzes whether the categories that were earlier created match up with the data that has been collected. While all data will not match up, by the point of saturation, the study should have the information available and the researcher should be able to make all deductions (Merriam & Tisdell, 2016). By the time saturation had been reached in this study, clear associations had begun to present in regard to change processes and their impact on faculty. Tentative schemes were clarified as they were matched with collected data.

Trustworthiness, Validity, and Reliability

To identify the challenges confronting faculty in the implementation of GP, a qualitative paradigm was applied through the use of a case study by which the researcher used interviews, observation, and field notes for data collection. Validity, reliability, and trustworthiness were at the forefront of every phase of this study to ensure its dependability and to maintain its rigor.

Rigor is defined as the quality of being extremely thorough, exhaustive, or accurate (Hobson, 2004, p. 548). To have any impact on theory or practice in a field, research studies must be conducted with rigor, presenting insights and conclusions that hold true to readers, practitioners, and other researchers. It is imperative that others have confidence in a study as well as its results (Merriam & Tisdell, 2016) so that they can act on its implications (Lincoln, Lynham, & Guba (2011). Rigor must be considered thoughtfully from the conceptualization of a study through its design, data collection, analysis, and interpretation and presentation of the study's findings to ensure this confidence.

Unlike quantitative research, that must convince the reader that procedures have been adhered to due to little description of what is done, qualitative research provides the reader with detailed description so that the author's findings make sense to the reader. Whereas quantitative research depicts a number of variables and static states, qualitative research describes people as they react to events and the world around them (Firestone, 1987). Because of the difference in the nature of investigation in these two paradigms, ***understanding*** rather than quantifiable data is the primary rationale for qualitative research. Because understanding cannot be quantified, careful design is essential to ensure rigor and trustworthiness of qualitative studies.

Merriam and Tisdell (2016) contend that what makes a study trustworthy is the careful design of the researcher applying standards that are both well designed and accepted by the scientific community. Researchers have developed a structure for ensuring reliability and validity that work with ***understanding*** philosophical thought processes that accompany the qualitative paradigm. While there is different nomenclature assigned to the concepts of trustworthiness framework, each shares a common core. Conventionally referred to as ***internal validity, external validity, reliability,*** and ***objectivity*** (Merriam & Tisdell, 2016), Lincoln and Guba (1985) parallel these concepts defining them in naturalistic terms:

- ***Credibility*** (internal validity): the integrity of results from the participant's perspective;
- ***Transferability*** (external validity): the extent to which a study's findings can be applied to other situations;
- ***Dependability*** (reliability): the extent by which results are consistent with the data collected; and
- ***Confirmability*** (objectivity): the degree to which the results can be confirmed or corroborated by others.

Each of these qualities must be present throughout site and participant selection criteria, data collection, data analysis, interpretation, and findings and conclusion within a study order to maintain rigor and trustworthiness.

Tracy (2013) lists eight criteria for conducting quality quantitative research. Research must: (1) be on a worthy topic, (2) be conducted with rich rigor, (3) exhibit sincerity — transparency of methods, (4) be credible, (5) resonate with a variety of audiences, (6) make a significant contribution, (7) be ethical, and

(8) meaningfully connect with literature, research, questions, and findings and interpretations (triangulation). These qualities exemplify the fundamental components qualitative researchers require to ensure reliability, validity, and trustworthiness.

Credibility or internal validity hinges on the meaning of reality. Since an assumption in qualitative research is that reality is "holistic, multidimensional, and ever-changing" (Merriam & Tisdell, 2016, p. 243), it is not a single static object waiting to be discovered. Therefore, as a study progresses, the reality of the data collected can morph into new discoveries. The transformative nature of qualitative research requires measurement that can also adapt with changing reality. Lincoln and Guba (1985) contend that validity must be assessed not with reality, rather the notion of credibility, asking whether findings are credible given the data presented. Thus, this study continuously checked to safeguard that it was staying on track in answering the study's questions while allowing rich contributions that arose from the dynamic nature of qualitative research.

Transferability**,** or external validity relies on thick, rich data (Lincoln & Guba, 1985) in which a study's meaning is derived from application of its findings (Yin, 2003). Stake (1995) contends that transferability allows for naturalistic generalizations stemming from sufficient raw data as well as detailed and logical methodology. Thus, the detail necessary in the compilation and analysis of data cannot be overstated as credibility and transferability team up to contribute to present and future research. This study took precaution in its description to ensure that detailed observations and findings were presented to ensure their applicability.

Dependability, or reliability is essentially synonymous with consistency. Tracy (2013) notes, however, that even if a study were repeated with the same researcher, in the same manner and context with the same participants, the dynamic, learning nature of qualitative research would not yield the same results. A study is, however, considered reliable if its findings are consistent with the data presented. Stake (1995) maintains that dependability requires transparent methodology. Such methodology includes triangulation, peer examination, investigator's position, and an audit trail. These methods of dependability cross through the framework of trustworthiness and ultimately are documented through the researcher's audit trail. Richards (2015) claims that "good qualitative research gets much of its claim to validity from the researcher's ability to show convincingly how they got there, and how they built confidence that this

was the best way possible" (p. 143). Copious, thoughtful, and consistent documentation was integral part of this study laying the groundwork for transparent methodology checks. To ensure dependability, the researcher employed peer examination by forwarding transcriptions to participants for review.

Confirmability or objectivity is necessary in a qualitative study given that the researcher is intrinsically involved in the study. Whereas objectivity has been a conventional concept of qualitative research, Lichtman (2013) maintains that a good piece of qualitative research includes the personal aspect of a researcher. Researchers are considered an instrument within qualitative research as they seek to understand the phenomenon rather than identify the relationship between variables (Creswell, 2004). Given the researcher's direct involvement in the study, recognizing and identifying the researcher's role, background, and biases were necessary to remain objective.

In addition to recognizing the researcher's biases, one must also acknowledge a study's limitations. For example, one limitation that may have been present in this study could include accurate recall. Careful participant selection was utilized to alleviate this limitation; however, as time passed and pathways became more of a norm at participating colleges, participants' recall may have been jeopardized. Careful notetaking and memoing were useful to document all areas where objectivity could have been questioned.

Another limitation that may have included researcher bias was that the researcher was on a team tasked with structuring the academic pathways at her institution, an opportunity that provided the interest and impetus for this research. Addressing preformed opinions, the researcher's role within her own college, and the impact participants' viewpoints may have had on the research were necessary to address as possible biases within this study.

Ethics

Ethical considerations directly correlate to the trustworthiness of qualitative research. Patton (2015) maintains that "for better or worse, the trustworthiness of the data is tied directly to the trustworthiness of those who collect and analyze the data and their demonstrated competence" (p. 706). Ethics encompass more than competence; inasmuch as a researcher's goal is to collect rich data, first and foremost participants' safety, mental and physical well-being, and privacy must always be top priorities.

After prior approval by the Institutional Review Board, participants were purposefully selected and informed of the study's purpose; time commitment; benefits, impact, and risks; measures to protect confidentiality, privacy, and data; the voluntary nature of participants and their ability to withdrawal from the study at any time; the participants' right to check and clarify the study's information; and how the researcher's findings would be disseminated before asking for their consent to participate in the study. Additionally, researchers must be aware of relational ethics by being aware of their impact on the study and treating participants' whole person rather than "just subjects to wrench a good story" (Tracy, 2013, p. 245). The credibility of a study relies on the trustworthiness of the researcher in carrying out the study in as ethical a manner as possible. All precautions were taken to remain transparent and share data with the study's participants.

Since qualitative research cannot be tested and duplicated exactly, it must be able to prove trustworthiness. Doing so requires a study be able to be audited through detailed documentation of each step of the process. Quality control checks throughout the study with triangulation, member checks, engagement in data collection, self-reflection of the researcher, peer review, an audit trail, and thick descriptions are necessary components of a trustworthy study. Since the "researcher is the tool" it was important to reflect on the researcher's involvement in and influence on the process and outcomes. Transparency through communication and data findings was essential within all aspects of research to maintain trustworthiness and to ensure that researchers and others have confidence in this study's findings.

Summary

This research was conducted within the qualitative paradigm as this research model best lent itself to the unmeasurable data concerning the interactions, experiences, perceptions, and processes faculty experienced through the implementation process of GP.

Site and participant selection were chosen non-randomly, purposefully selecting institutions and faculty that had gone through the GP process and could best speak to their experiences with the process and their roles within their institutions. The sites were chosen due to their affiliation with the CCOSS and its association with the AACC, given their support and oversight to GP implementation.

Qualitative research lends itself to multiple means of gathering data. The main source of data

collection came from semi-structured interviews, as this method was most effective in enabling participants to expound upon their experiences, thoughts, and feelings. It also allowed the researcher opportunity to delve deeper into a topic that was showing promise for rich data.

Effective data collection allows for efficient and useful data analysis. The data analysis methods most appropriate for this inductive, comparative qualitative study included theming, coding, data cleaning, charting, and mapping. The researcher mined and analyzed data as it was collected, continuously tweaking and streamlining the process to ensure rich data. Through focus and utilization of constant comparison as a means to categorize and compare data, the researcher was able to conceptualize connections that ultimately aided in formulating a theory.

Trustworthiness, validity, and reliability need be the foundation of any research to ensure its internal and external validity, reliability, and objectivity. Every effort was made to safeguard these qualities in a transparent manner as well as to identify and acknowledge this study's biases, delimitations and limitations.

Chapter Four: Summary of Qualitative Findings

Introduction

This study sought to gain inside perspective from faculty regarding their perceptions and involvement in the implementation of guided pathway (GP) programs at their respective institutions. The information learned from this research is intended to aid the growing number of community colleges that are implementing guided pathways programs. A qualitative paradigm was utilized to gain personal insights from faculty in an effort to identify what had been most effective and least effective in securing their support of guided pathways programs. To best obtain this information, semi-structured interviews were used as they best lent themselves to open and rich discussion between the researcher and the interviewee.

The study data was analyzed seeking convergent and divergent themes among faculty and the researched institutions. The data was further explored to analyze the effectiveness of two institutions' change processes in relation to their adherence to established change theories.

Purpose and Research Questions

The research questions looked at the degree to which Kotter and Senge's change strategies were implemented in GP institutions. They also sought to identify whether the presence or absence of these strategies impacted faculty support of GP. Special attention was paid to how these strategies were employed in the onboarding process. Given the institution-wide collaborative approach necessary for GP change, overall support is vital, especially from faculty, the front line to students. Understanding what best enables faculty support can be used by institutions to enhance institutional processes as they implement the transformative change required of GP. To gain this understanding, the following questions were addressed.

Research Questions

1. To what extent did institutions incorporate Kotter and Senge's change strategies in their onboarding and implementation of GP?
2. How did incorporation of Kotter and Senge's change strategies affect faculty receptivity of GP?
3. How did the level of faculty receptivity and support impact the robustness of GP implementation?

Data Collection Protocol

Interviews were conducted at two different Midwestern community colleges, College One (C1) and College Two (C2). Both colleges are members of their state's Community College Organization for Student Success (CCOSS); C1 was also one of the thirty colleges chosen by the AACC to partake in its Guided Pathways Project. Semi-structured interviews were conducted with a total of eight faculty, five at C1 and three at C2. Faculty at both institutions represented different departments of the colleges as well as student support services. All faculty at C1 were involved in varying degrees in the planning and implementation of its GP program. Faculty at C2 did not play a role in the planning stages of its GP program. An interview document (see Appendix A) was used to guide the conversation and to facilitate similar conversations among those interviewed. Prior to fieldwork, the interview questions were piloted on faculty from other GP institutions. Recommendations for changes to enhance the quality of data were made prior to actual interviewing. Data collected from pilot interviews were not included in this research's results.

Interviewees were identified through purposive sampling by which faculty at C1 and C2 recommended faculty from their GP institution. Interviewees were contacted via email to request their participation in the interviewing process. Semi-structured interviewed were conducted in person at the respective institutions for all but two faculty who were interviewed through video conferencing. The interviews were recorded and transcribed to identify coding and themes. Member checks were done to ensure transcription accuracy.

Interview Participant Profiles

This research consists of data from two separate colleges for a total of eight interviews. The five

individuals selected from C1 consisted of: the director of First-Year Seminar (FYS) courses who was also adjunct faculty teaching FYS and language courses; a professor in the Health Careers Department; a math professor who also assisted students with basic math skills; a professor teaching college success courses and coordinator for developmental education; and a professor in the science department. The three faculty from C2 included: an adjunct faculty in developmental math and science who was also the lab coordinator for the College's tutorial math lab; a math professor and coordinator for the math department; and a language instructor and coordinator of the College's language arts laboratory.

Table 2: Study Participants

PARTICIPANT	COURSES TAUGHT
CQ	Science
CR	First Year Seminar Language +
GM	First Year Seminar +
DA	Health Careers
TM	Math +
VD	Math
KS	Language +
IK *	Math +

* Denotes Adjunct
+Denotes student development (reading | math | language lab)

Qualitative Findings

Interviews at the two colleges in this study focused on Kotter's eight steps deemed necessary for transformative change as well as Senge's concept of systems thinking (ST) as supported by research in the literature review. Each of these models are noted as significant contributors to successful change management as noted in the work of both Kotter and Senge; and their presence or absence are identified through the stages of the change process at the researched institutions.

Findings from the semi-structured interviews conducted in this research were used to address the research questions. The researcher sought evidence of Kotter and Senge's change processes and how they affected the implementation of GP. Each of the interview questions (see Appendix A) lent themselves to discover information as it related to these processes.

Communication, collaboration, transparency, professionalism, and trust were emerging themes

throughout this research as they related to employees' input regarding GP change. Transcripts from each interview were coded to denote these themes as well as actions and comments that provided additional support. The findings that support research questions were based on interviews with faculty and are summarized below; they are organized by participant responses and/or their corresponding colleges, College One (C1) or College Two (C2).

Interview Findings

Research Question One (RQ1): Change Strategies

How did institutions incorporate Kotter and Senge's change strategies in their onboarding and implementation of GP?

Evidence of Change Strategies

As written in Chapter Two, Kotter and Senge reason that specific processes and elements of change need to be present for successful transformation to take place. RQ1 was used to determine how the researched institutions used Kotter's change transformation steps and Senge's ST approach to effectively realize change. The purpose of the interview questions was to elicit the extent to which institutions incorporated Kotter's steps into their change processes as well as to seek evidence of communication, collaboration, transparency, and trust emphasized by Senge as elements contributing to successful change.

Establishing a Sense of Urgency

Kotter (2012) emphasizes the need to create a sense of urgency for a strong initiative launch. This step, he explains, should include driving employees out of their comfort zone; communicating the big picture; and minimizing blame to encourage idea sharing and collaboration. To determine how the researched colleges established a sense of urgency, participants were asked to discuss how they first heard about their colleges' interest in the GP program, the role they may have played in its initial phase, and the early stages of the program at their college.

Results: College One

C1's GP initiative had been started by faculty members who brought the program to their administration, who in turn did some inquiries of their own. Each of the five participants noted their

institution's commitment to its GP project and an unrelenting path to swift implementation.

Comments to support this view include responses from the following faculty members:

> **CR** Okay. So, the very first thing is we got into this and found out, "Yes, we're going to do this." I mean, directly from the president and the academic provost. But yes, we're going to do this. And we're going to implement it at this time, so get it done. So, it starts off with a strong commitment from senior leadership and an expectation that we're going to do it and no backing away from it.

> **GM** In that fall 2014 our leadership, our administrative leadership, came back from some conference - I don't know what one, maybe it was National Association of Community Colleges - and they came back all excited about Pathways. So, they came to our Foundation Studies Committee meeting and they said, "We're excited about pathways. I know you guys are excited about pathways. So, let's make it happen."

This same person noted that his institution decided to launch GP and did a complete rollout of the program in one and one half years; he added that his college addressed and justified the swift rollout to faculty with complete transparency.

Results: College Two

Urgency was not conveyed in C2 participant responses. One said that GP really did not impact what he did. The other two did not recall great importance put upon the GP rollout at their institution. They did not note urgency as a factor, as evident in their statements below.

> **IK** So, I think the first time I heard about it in any official capacity was-- I was sitting in on our strategic leadership team…. And it was brought up tangentially. By then, it had been launched and people supposedly knew about it. And I knew about it. Just in general, what it was. But my sense was that we were kind of doing a backdoor implementation that we did. We never seemed to do a big rollout.

Another faculty member indicated that she initially heard about GP "Through the grapevine."

On-boarding

On-boarding strategies coincide with establishing a sense of urgency. Varying degrees of onboarding were presented through this research. Faculty at both institutions reported not being involved in the final decision of whether or not their colleges would implement GP; however, the faculty interviewed at C1 experienced notably more communication and influence with administration regarding their GP initiative and considerably more involvement in their institution's GP implementation. Faculty from both institutions viewed GP implementation as an initiative supported by administration. Faculty from C1 and C2 presented remarkably different perspectives of the opportunities they were provided to play a role in

the implementation and planning of their college's GP project.

Results: College One

Five out of five participants at C1 acknowledged specific onboarding strategies for GP and indicated feeling that they had played a role in its implementation. Methods they mentioned being used to onboard faculty included:

1. Purchase of many copies of the book, ***Redesigning America's Community Colleges: A Clearer Path to Student Success*** and encouragement that all read it
2. Guest speakers
3. National workshops: attended by administration, who mandated that certain faculty went as well
4. CCOSS conferences: meant to inform both faculty and administration, as well as collaborate between CCOSS institutions in regards to what they were doing with their GP projects
5. Faculty acting as liaisons to share workshop and conference information with their departments
6. Training
7. Mandatory participation at C1's Pathways Day (highlighting each pathway to students)
8. Communication via email, the College's GP webpage, and department meetings.

Results: College Two

Two of the three faculty members at C2 reported not being aware of what, if any, specific strategies were used to onboard faculty. All three reported that if they had been notified in the early stages of GP planning, it would have been through emails that they may have missed. They pointed out that there was no major campaign from their college to alert faculty of C2's intent to begin the project. None of the faculty interviewed were specifically sought out to be a part of GP planning or implementation process. In regard to communication regarding the program, faculty reported that:

> **VD** They did talk about it [GP] here and there, and then of course we were doing some curriculum revisions, things like that. So, through the curriculum, people heard about it and then of course it was announced when they finished it.

> **KS** noted that he received updates by his immediate supervisor of what was happening with the GP program at C2. This same faculty said that he may have missed emails that might have gone into detail about GP, but that he did not recall any specific invitations or opportunities to get

involved. He and VD stated that GP really did not impact what they did at C2.

IK recalled the first time that she realized that GP had been implemented at her college; she heard that students now have to choose a program when they are selecting classes. She noted that she had asked administration prior to her college's GP implementation if they would be doing anything like GP at her college because she had read Bailey, Jenkins, and Jagger's (2015) *Redesigning America's Community Colleges: A Clearer Path to Student Success*. She expressed her thought that it would be great idea for her college and expressed her desire to be involved.

Establishing a Guiding Coalition

Creating a powerful coalition requires shared commitment from different groups within an organization; and transparency and communication are paramount to the success of this alliance (Kotter, 1995). To elicit information regarding each institution's level of shared commitment and their communication efforts in regard to GP's planning and progress, participants were asked about the opportunities afforded to them to get involved in the planning process and the role they played going forward. Participants were also asked about their knowledge of interdepartmental communication and collaboration.

Results: College One

Four of five respondents from C1 provided evidence of commitment and communication between the different areas of their college as well as examples of commitment to the success of their GP initiative. Evidential support is listed below.

CR So, you got to be involved with all of the key pieces as they go along. So, you have to get your registrar involved, okay. You have to get your student services people involved. You have to get-- it's across the board. Matter of fact, the whole college has to buy into it because it's a change in our culture, okay, as to what we do.

GM I want to make clear that from the very beginning, since this was started by faculty, and then administration was supportive. So, we decided to have one faculty member and one Student Success Council member to co-chair the steering team and to handle the whole GP rollout, implementation. So, from the beginning it's never been an administrative initiative that was imposed on us.

GM I think the fact that we have a Student Success Council, and that council is made up of at least-half of the council is faculty. And the people that gravitate to that committee, the faculty, they care about student success. So, it means in every department, we have people on that committee who are the insiders that are helping their department see the value in whatever the new initiative is…. we had people, faculty, who were championing the pathways idea, and explaining the idea, throughout the campus. So, I think that's going to be one of the secrets to our success.

TM added, "They did tons of focus groups to ask questions and get feedback about their

[faculty's] initial thoughts on Pathways."

Results: College Two

C2's faculty responses indicated considerably less collaboration and a lack of a ST approach. While there was evidence of some interdepartmental communication, two of three faculty emphasized that nothing was done at their institution to encourage collaboration. There appeared a deficit in communication and transparency as participants speculated about the program. They knew that something was getting done and structures were being put in place, but they did not have a clear idea of how this was getting done. Participants acknowledged that they may have received and missed communication; they indicated email as the sole method of communication. Participant comments provide examples of the communication experiences.

> **VD** There was collaboration between some of the people involved in this, but between us, I really couldn't say how well that went. I know that because of the way it was-- what it was, they ***had*** to work with other areas and other departments. I mean, counseling ***had*** to be involved. The registrar and the people who run the system where students register. All of that had to be involved, and they finished it and accomplished it so clearly there had to be ***some*** collaboration. [Participant raised her eyebrows and rolled her eyes as she said this last sentence].

When asked what was done to onboard faculty to GP projects, the following conversation ensued.

> **IK** Nothing that I know of. And maybe we're still waiting because we're just kind of getting it all set before we tell everybody this is what we're doing. I don't know.

> **Researcher**: It's been a couple of years, right?

> **IK** Yeah, and I think part of it was it's been seen as a structural, administrative thing more than an organic- like okay, we'll put the structure in place. Now, all of our courses are aligned better and they're all-- we have pathways clearly laid out, so students know the pathway. So, it's a structure more than it is a philosophy, an approach."

In regard to departments working together on GP projects:

> **IK** I haven't seen it. Yeah. I think that's the goal and I think some of the implementation teams probably had multiple representing-- across-the-board and across-campus representation. But as a whole, our college is pretty siloed, doesn't work and play well together yet.

This same faculty member had approached administration to inquire about GP and expressed her want to be involved prior to its implementation. When asked how much opportunity she was afforded to be involved in GP on a scale of 1-5, she answered, "Zero."

In regard to everyone having a chance to learn about and become involved in GP initiatives one faculty member said:

> **VD** Well if you asked the deans, I'm sure they would say that's true. And it's possible that something through [SSSC] [Student Success Support Council] went out or said, you know, if you're interested in being on this committee – from time to time. If it's anything related to [SSSC], then of course there would be an opportunity for anyone there to be on the team. And it could be that something came out and because I'm busy, I ignored it.

Develop and Communicate the Vision for Buy-in

Creating a change vision requires that all can visualize the big picture and that a detailed strategy and timeframe to achieve this vision are transparent and understood. It is imperative that leadership is an integral and consistent source of communication and that day-to-day communication is achieved through multiple channels (Kotter, 1995). To elicit how the researched colleges created and communicated their vision for GP, the researcher asked participants about how they had learned about their institution's GP initiative and what events ensued. Participants' responses provided insights into the degree to which collaboration, transparency, and communication played a part in developing and sharing the vision amongst faculty.

Results: College One

Participants from C1 listed administration led learning days; convocation events where new initiatives were discussed and then ideas and timelines were further clarified within departments; Pathway Day for each pathway to showcase what they were about; emails; and a webpage as communication initiatives for their college's vision. They indicated various modes of communication and opportunity for clarification of processes they did not understand. Participants expressed a sense of commitment to their peers as being something that helped to drive the vision and enabled communication and transparency.

> **GM** I regarded it as my job to both interface with the committee and to come back here and talk to people about what the committee was discussing and also to get their input about how I should be representing everybody else in the department on the committee.

C1 offered coaching geared toward communicating the vision to others as stated below:

> **GM** He [advising supervisor] and I went to a training that was offered, was one of the many CCOSS trainings typically about how to encourage the conversations, and college-wide conversations. So, I think going to that early on really made us aware of the importance of open communication, include the conversations hearing and addressing what people's complaints and fears, especially ***fears***, [accentuated fears] are. So, I think that kind of framed our conversation with the college community. We just said early on, "We know this is a big deal. We do not want to

have anyone feel like something is being imposed on them; we need everyone's wisdom. Because there are going to be issues that come up that are going to blindside us, and we need everybody's sort of eyes on it, and everybody who has a concern should raise it, so that we can address the problems as they arise.

GM So we had, all the disciplines had their own table. And then, the lead faculty for different pathways went around and met with those course leads in the disciplines and asked just really good questions and had just really good conversations like getting to know this is what I think we need.

Results: College Two

All three participants at C2 reiterated that they may have missed emails from administration about their institution's GP project, noting that they do not read all of the emails that they receive. They noted that their college's GP vision was not communicated to them. Two of the three interviewed relayed that they were on several committees and should have had ample opportunity to be involved in GP discussion, but that it was not a topic they were privy to. The third participant indicated that he received updates from his supervisor but had not been specifically asked to be a part of and was not involved in planning or developing his institution's GP project. Overall, the main modes of communication mentioned at C2 were email and word of mouth.

Below are quotes regarding GP communication to the faculty interviewed at C2:

VD I am on a number of different committees so communication that way. They did talk about it [GP] here and there and then of course we were doing some curriculum revisions, things like that. So, through the curriculum, people heard about it and then of course it was announced when they finished it. I'm pretty sure that [SSSC], the [Student Success Support Council], knew about it much before I did. Because I don't go to their meetings regularly. Communication of the big picture is not evident. This year-- communication has been an issue since before I was hired. It's not like they put a sign on our door that I saw every day. So that would probably make an impact.

In regard to understanding the GP big picture:

VD All of these things probably play into that whole degree program guided pathways but are just maybe adjunct pieces and I'm not sure what the relationship between it is. The purpose of what we do around here is often not real clear because sometimes it's like the latest flavor of the month. The deans go to a conference, they hear something and that's a good idea. So, it must be that we should do it here and they don't always listen to the faculty, which is not probably unusual. And then of course the faculty don't think highly of the deans because they didn't feel listened to. So that, that happens.

In relation to collaborating to push the project forward:

VD There was an issue with [an administrative member] who was actually in charge of this who got kudos for doing that because she was not respectful of faculty. The faculty had issues with her a lot. But in general, I don't know if our opinions are really all that respected, but it's more like go through the motions. Oh yes, we checked with the faculty and then we did what we wanted to

anyway. So as far as respect for the faculty, I don't think our administration has totally dealt with that issue well.

In regard to communicating the vision and progress of GP to faculty:

> **IK** I'm not really sure that I was aware of the timeline, other than it's like, oh yeah, we're gonna be doing this next year. That's going to happen now this fall. This sort of thing. Big picture again.

> **VD** Well, there would certainly be some of the reports that the upper echelons look at and receive. I believe [SSSC] had a couple of reports back on that. And of course, the board would be given updates occasionally. When I look at the board notes there's things in there from different areas, so I'm guessing those would be the usual routes. But directly to faculty? Probably not.

Empower Broad-based Action

Emboldening leaders to remove obstacles, narrow job descriptions, and provide compensation / release time to institute change are measures that help empower broad-based action (Kotter, 1995). To identify whether any of these measures were implemented, the researcher inquired how extra time commitments affected faculty and assessed faculty's level of commitment at different stages of the implementation process.

Results: College One

Empowering broad-based action was highly evident at C1. Four of the five faculty interviewed at C1 represented their institution by attending GP conferences and workshops and organized convocations and workshops at their own institution to share what they had learned and what their college as a whole could do to work together. They created solutions to best implement change at their institution. These faculty members reported the importance of their collaboration and transparency, addressing the value of reporting back to their peers; they promoted and utilized ST to address this need.

Examples of broad-based action are evident through faculty responses:

> **GM** So then I think it's really promoted forced changed, but I think it's going remain for everyone because it's like, oh, we weren't cross-disciplined, and we then have really good conversations. … And now there's-- I think it-- what I notice over the last year, so there's definitely more open dialogue without leadership getting involved. People are just like, oh, I can call this-- see this person, and making this my own. And when I see some things that need to be changed in our math department, we just call student services and we have lots of-- I think there's definitely more open communication in our class than there was before, not because we didn't want to, it just was like we never thought outside the box…. Yep, interdepartmental, I think that there's better communication.

> **CR** Key representatives in the faculty, then they came back, and talked to faculty, okay. "So, here's what seems to be working in other schools." And we kept trudging ahead, and trudging

ahead, and trudging ahead. So, the key was then, "Get your general eds in order. Make sure you have the data, because if not, it's going to be all anecdotal."

Results: College Two

All three faculty members at C2 noted that they do not have direct communication with any teams that are involved in the implementation of GP. None were specifically offered an opportunity to participate. Two faculty members remarked that GP did not really pertain to faculty exhibiting skepticism in their responses and their understanding of their institution's GP program. They did not, however, speak to any details.

> **KS** So, it's very, like I said, kind of in-the-moment sort of place, so a lot of the big-picture things don't really filter down to us.

Incorporate Change into Culture

Incorporating change into culture requires institutionalizing new approaches through transparency and breaking down silos by bringing the outsiders in (Kotter, 2011). Senge (2014) compounds on Kotter's take, explaining that employees do not want to be told what changes they have to make; rather, they want to be involved in the change process and are a necessary component in formulating optimal solutions. To elicit the extent to which faculty played a part in culture change, participants were asked about what their colleges did to maintain commitment to their GP program and to ensure that faculty remained involved.

Results: College One

College One's faculty maintained ongoing communication as delegates returned from GP presentations and shared information with faculty. Meetings were ongoing, as faculty set targets and worked toward achieving goals. Four of the five faculty members interviewed at C1 acknowledged open communication and collaborative efforts as contributors to GP progress, deeming them necessary for the successful trajectory of their GP program. The fifth faculty at C1 noted the difficulty of interdepartmental collaboration given the College's turnover of advisors. Overall, C1 indicated ongoing collaboration through the following comments:

> **DA** So, we would go to a conference, a mini-conference kind of thing, at a few other colleges where everybody would be discussing where they were at in the process, some further along, some less far along. And we would all discuss it there, and then we'd come back here and meet more, and they would go back to theirs and meet more. And so, it was an implementation process

that went on for a couple of years if I recall right. And we had to meet every month or something.

CR Once the decision is made [about implementing GP], we stick with it and there's no going around unless we find out it was a total wrong thing-- and we had meetings once a week on this, on Fridays all day, as we're putting this in. So, these were intensive meetings to make sure we were getting things done with a target is this is when it's going to be done.

GM So, we are always looking for what's the next good thing on the horizon that we can try at [C1]. If someone came back from a conference and they said, "Let's try this new thing", they would bring it to that committee. We would roll it out to the college, and we would try it, and if it was working good, we would scale it up. If it was working bad, we, gave it up. And so, we really are a college that embraces new things, new ideas.

In response to [advisors] and faculty teams working together:

CQ We are invited and they [advisors] love to have us come to their weekly meetings because all the [advisors] get together once a week for big meetings to talk about particular problems that we're seeing, or issues, problems with advising.

Results: College Two

C2 faculty responses indicated minimal interdepartmental collaboration. Contrary to Kotter's call for breaking down silos, one faculty specifically mentioned how siloed her institution was, two years after GP implementation. Culture was not viewed as having changed, and college-wide collaboration was noticeably absent. Faculty noted that,

IK Culture hasn't changed as a result of GP. We've had new leadership and things, so there's hopefully being a culture change. But yea, it's hard to get the whole thing [GP] going. And I know every institution has administrative-faculty clash. But ours, to me, seems pretty severe in terms of mistrust and lack of respect back and forth so.

KS I guess, that it's [faculty support of GP] pretty important. I am going to put sort of my trust in the people that made this decision and assume that it was thoroughly researched and that it is, on the whole, in the best interest of our students.

Research Question Two: Faculty Receptivity to GP

How did incorporation of Kotter and Senge's strategies affect faculty receptivity of GP?

The intent of Research Question Two was to identify the degree to which Kotter and Senge's change strategies impacted receptivity of GP at the researched institutions. To identify this impact, faculty were asked to explain changes they experienced as a result of their college's GP project. Interviews with faculty were used to isolate practices that positively impacted faculty and were successful in gaining colleague support of GP projects. Conversely, interviews helped identify the absence of practices and the

impact resulting from their void. The extent to which change approaches were applied at each institution varied considerably; so too did the receptivity of faculty at each institution in regard to their GP programs.

Results: College One

Interviews from C1 indicated a high value placed on faculty support and a ST approach in GP implementation. From creating a sense of urgency through incorporating changes into the culture, faculty gave evidence of a chronological progression through Kotter's change process. Two of the five faculty interviewed said that their GP project was not an easy feat. They added that faculty had been given ultimate control, and without this guiding coalition of faculty, GP could not have been done. All of the faculty interviewed at C1 highlighted that they understood the big picture and end goal, and that data played a large factor in getting faculty on-board. Once faculty were on-board, they were more apt to attend meetings, ask questions, and bring their concerns and ideas to the forefront. Urgency, communication and transparency in GP implementation were noticeably present at C1 as was a ST approach to problem solving.

One faculty noted that he thought at the time, that too much urgency was a possible flaw; he had originally thought, that swift implementation of GP would have caused problems that would have needed to be addressed. He added, however, that swift execution provided an opportunity for faculty to point out program shortcomings and created an environment to discuss and solve these issues. Evidence of the value placed on faculty support can be seen through the following interview excerpts.

> **GM** I think that any time you're going to have any kind of major initiative like this, to try to do it without faculty buying in, it's going to be a non-[starter]. We are a union college, so faculty aren't going to do what they don't believe in, or they're just told to do, right?

Data showed that faculty recognized the issues with proceeding too quickly:

> **GM** It was done really fast, and I don't' know that's always the best thing**....** And it was exhausting. So that was the main concern. I would say it was very valid. My call, I think I would have taken maybe one more year before we rolled it out. But we decided to jump in with both feet because you know that was going to be good for students. And so, I remember addressing the faculty [Counselor A] and I were talking to faculty, you know, faculty in-service, and we just showed them our data. …And we showed- we went, we did a PowerPoint and we said, "You know, this is our system, and it's confusing for students. And this is the Guided Pathways system, and it looks like it's going to be much better." And what we said is this, "We're going to roll out in fall 2016. And because doing it so quickly, we're going to have glitches. We're going to have things that we did wrong. There's going to be areas that we forgot. But as imperfect as the system is that we roll out, it's going to be better. It has to be better than what was existing before. And they accepted that line of reasoning.

Communication was mentioned by C1 faculty as having been instrumental in the early stages of their GP program as seen by their comments:

> **GM** I think people- the big reason that people don't get on board with initiative is they're outside of the loop. They see that something's going on, they don't know the inner workings and why things were decided, and what are the details, and how is it going to affect me? So, because we had faculty members from all the departments, that all those faculty could go to those people that they know and they work with and ask their questions. We also had a lot of opportunities for people to really vent their questions, and ask their questions, and say if they thought it was not going to work. And we listened. We didn't try to shut those conversations down. We really invited them and included them and sometimes, you know, they'd raise something, and we would say, "You know, we don't really know the answer to that, but there are some experts we can access."

> **CR** So people — from my view was there wasn't a lot of buy-in right up front…. And there were quite a few people that came that were concerned for different reasons. Everybody agreed that we needed change and we needed a way to support our students. And so, everybody thought that, well, and they say, the people that had questions, But I think the school's done a nice job about continuing to have the message about the premise of Pathways and that we're not giving up on it. And that even though we've implemented two years, we're constantly — we still meet every other month as a committee and talk about — always talking about our next steps, monitoring our data.

All of the participants interviewed were able to envision and convey the big picture from the onset of their college's project. Four of the five faculty interviewed remained highly involved in their project, supporting and communicating the project to their colleagues, and attending conferences to learn from other institutions. The one faculty member who exhibited the most skepticism of her institution's GP processes maintained that GP is good for students. She continued to advocate for correcting scheduling issues, which she found as a major flaw to her college's GP project. It was evident through interviews that because faculty understood the system in place, they were able to identify where there were issues with their GP system and knew who to work with to rectify problems. Faculty at C1 demonstrated empowerment and ownership.

Collaboration and communication were apparent throughout C1's GP initiative as those most involved worked to support others and share their knowledge. Transparency was evident among faculty members. Those most involved acknowledged their commitment to making sure that their colleagues were informed of decisions and processes and encouraged others' participation. When faculty had questions, leaders researched to find answers they did not know. Opportunity for strengthening the guiding coalition was ongoing as faculty were updated and brought into their college's GP community. Each of the five faculty members continued to challenge the program and remained open to change and

improvement. Faculty incorporated ongoing change into their culture and continued to enhance the robustness of their program.

Results: College Two

Senge and Kotter discuss the necessity of seeing the big picture and working together to enable its realization. Evidence of the big picture was notably absent from C2. Two of the three faculty exhibited indifference about their GP program and repeatedly commented that they did not recognize how GP affected what they do or how their positions could add value to the program. Another faculty member expressed disappointment for not having been involved with the planning of her college's GP program and expressed how her experience and ideas could have added value. This same faculty member shared with the researcher data about her developmental program and her ideas to improve interdepartmental collaboration to enhance student success. She did not, however, share her input with her institution's GP planning committee, a committee comprised of approximately thirty individuals representing all areas and levels of the College.

Faculty at C2 reported not being a part of any onboarding program. They remarked that they were not aware of strategy or the data driving their college's GP program. All three participants acknowledged a lack of communication and minimal collaboration with student success initiatives associated with their GP programs.

One faculty, KS, did not recall whether or not his input was ever sought on interdepartmental communication regarding GP, saying, "No. I don't remember that it — I can't say for sure. I would say I don't remember."

When discussing the early alert component of the GP program, he noted that:

> **KS** He [his department chair] then forwards those alerts onto appropriate advisers, and counselors, and then lab coordinators …. So, we are all aware that this student is having a particular issue. And then here's where there's a bit of something that is a bit of a gray area. There isn't really a policy on what then we do on our end.

This faculty member did not attend any meetings on GP, nor did he remember any instance where a connection between his role and GP was communicated to him. A ST approach was not evident to any degree among the faculty interviewed at C2. The faculty interviewed at C2 indicated through interview responses that Kotter's steps were halted from step one. None of the faculty interviewed at C2

reported experiencing a sense of urgency, nor could they detail any of the particulars regarding GPs implementation process. Kotter emphasizes the need for multiple means of communication to maximize a guiding coalition. Communication at C2 did not reach all faculty to present opportunity for involvement. Participants identified email as the main source of communication, and the sole source from the one faculty member with the greatest want to become involved in the GP program planning.

Research Question Three: Impact on Robustness

How did the level of faculty receptivity and support impact the robustness of GP implementation?

Team support, communication, and reassurance of progress are essential to a successful transformation. Kotter (2006) stresses that ongoing communication, involvement, and affirmation of accomplishments bond coalition members and prevent cynic groups from taking hold of efforts. Similarly, Qian (2008) notes that communication plays a key role in the effect on cynicism as it relates to organizational change. He adds that day-to-day cynical workplace communication can similarly influence others' cynicism.

Results: Both Colleges

Skepticism and lack of communication were evident among faculty not involved in their college's GP program. Those interviewed at C2 were not involved in their college's GP project and indicated that they had not been privy to the communication surrounding the program. Faculty generated negative discussion regarding the program and gave no indication that they would become involved at a future date.

Implications of not getting faculty support included:

- Smaller guiding coalition;
- Less faculty input /interdepartmental communication;
- Less sharing of best practices;
- Absence of new approaches; and
- Skepticism

Interdepartmental communication as it related to GP was not regarded as a high priority as far as C2 faculty were concerned. KS and VD were in positions to collaborate with different departments

regarding GP but did not see the need. On the other hand, faculty at C1 reported increased opportunity for interdepartmental collaboration and continuous process improvement as a result of the meetings faculty attended.

Experimenting with new approaches was absent among faculty at C2 as they remained committed to the way things had been done. They shared ideas in their interviews and how their day-to-day could relate to other areas of the college but did not share these ideas with the groups creating GP strategy. C2 faculty did not perceive being a part of a coalition that would support their trying new approaches. Faculty conveyed feeling siloed and did not report conditions that would facilitate a ST approach.

Emergent Themes

Thematic analysis and coding were utilized to identify themes that emerged from the data collected during the interviewing process. The thematic analysis aided in identifying five key factors whose presence were determinants of the effectiveness of GP implementations at the researched institutions. Table 3 provides examples of the connection of the themes to participants' responses.

Table 3: Emergent Themes

THEMES	EVIDENCE
Communication	"I regarded it as my job to both interface with the committee and to come back here and talk to people about what the committee was discussing and also to get their input about how I should be representing everybody else in the department on the committee." GM "We had people, faculty, who were championing the pathways idea, and explaining the idea, throughout the campus. So, I think that's going to be one of the secrets to our success." GM
Collaboration	"So, you got to be involved with all of the key pieces as they go along. So, you have to get your registrar involved, okay. You have to get your student services people involved. You have to get-- it's across the board. Matter of fact, the whole college has to buy into it because it's a change in our culture, okay, as to what we do." CR "So, it means in every department, we have people on that committee who are the insiders that are helping their department see the value in whatever the new initiative is." GM
Transparency	"And because doing it so quickly, we're going to have glitches. We're going to have things that we did wrong. There's going to be areas that we forgot." GM "You know, we don't really know the answer to that, but there are some experts we can access." GM
Trust	"I want to make clear that from the very beginning, since this was started by faculty, and then administration was supportive… So, from the beginning it's never been an administrative initiative that was imposed on us." GM

THEMES	EVIDENCE
Professionalism	"So, I think going to that early on really made us aware of the importance of open communication, include the conversations hearing and addressing what people's complaints and fears, especially ***fears***, are. So, I think that kind of framed our conversation with the college community. We just said early on, "We know this is a big deal. We do not want to have anyone feel like something is being imposed on them, we need everyone's wisdom." GM "I think it-- what I notice over the last year, so there's definitely more open dialogue without leadership getting involved. People are just like, oh, I can call this-- see this person, and making this my own." GM

Summary

The focus of this research was to identify the extent to which change strategies impacted the degree of faculty involvement or resistance to GP initiatives. Research has shown that faculty can be resistant to change; and knowing what strategies work best to involve faculty in change processes can increase the likelihood for change to take hold.

The findings communicated in this chapter affirm that all participants were qualified for this study based on research criteria. Participants' responses were recorded and summarized from the interview questions asked in semi-structured interviews, which were then mapped to the research questions. A central data point that was identified by faculty was the presence or absence of interaction and teamwork in carrying out their GP programs. Thematic coding and analysis were used which exposed five major themes from this research; communication, collaboration, transparency, trust, and professionalism. In Chapter Five, the qualitative data findings are analyzed, and conclusions, implications for future research, and recommendations are provided.

Chapter Five: Data Analysis

Introduction

The data collection and data analysis processes work in tandem in qualitative research (Merriam and Tisdell, 2016). Therefore, this chapter focuses on the data collected from semi-structured interviews, field notes, and the approaches utilized to analyze the data. This study focused on identifying change strategies which impacted change at two Midwestern community colleges and the extent to which these strategies aided or hindered guided pathways (GP) implementation.

The chapter is organized by the three research questions this study sought to answer:

1. To what extent did institutions incorporate Kotter and Senge's change strategies in their onboarding and implementation of GP?
2. How did incorporation of Kotter and Senge's change strategies affect faculty receptivity of GP?
3. How did the level of faculty receptivity and support impact the robustness of GP implementation?

The first section seeks to identify the strategies used to approach onboarding and implementation of GP at the researched institutions. Data collected from these institutions was analyzed to identify how institutions incorporated change theory from John Kotter and Peter Senge throughout the phases of their GP implementation. This analysis will provide insight for establishing and maintaining the trajectory of change processes.

The second section looks at the extent to which the incorporation of Kotter and Senge's change strategies affected faculty receptivity of GP. The analysis of their application is broken down to reflect how the adoption of change strategies positively affected one college, while failure of adopting them negatively affected another. The semi-structured interviews provided an opportunity to explore which aspects of these strategies best involved faculty and whether or not their utilization affected faculty's receptiveness to GP change.

Finally, this analysis addresses how the level of faculty receptivity and support of change impacted the robustness of GP implementation. The final section focuses on practices faculty utilized that impacted institutional change and elucidates themes that emerged from this research. The findings in Chapter Four are based off the literature review in Chapter Two, which establishes the basis from which conclusions are made.

#1 Incorporation of Change Components

One of the study's primary research questions was: To what extent did institutions incorporate Kotter and Senge's strategies into their onboarding and implementation of GP? The theoretical framework reviewed research that showed that faculty have difficulty with change (Caruth & Caruth, 2013), and the more significant the change, the more challenging it is for stakeholders to agree with change (DeGraff & Quinn, 2006). Kotter and Senge recommend strategies to help alleviate this challenge and enhance support. These strategies involve stakeholders in the planning and implementation process and are deemed necessary by these change gurus to effectively initiate, maintain, and sustain transformative change.

This study identified strategies that were effective in onboarding faculty to GP change. Additionally, it showed that the presence of Kotter and Senge's change strategies aided in initializing, growing, and maintaining a coalition of support for change. Support for these findings can be seen through various stages of change.

Establishing a Sense of Urgency

Kotter notes that successful transformative change requires specific steps be taken and that they are followed in a specific order (Kotter, 2006). College One (C1) provided evidence of this progression in their GP implementation as each initiative taken could be mapped back to Kotter's steps. The first of these steps, ***Establishing a Sense of Urgency,*** was created to meet the College's indisputable goal — student success. While one faculty indicated expediting GP implementation as a possible flaw, this sense of urgency, he noted, forced transparency as leaders had admitted that swift implementation would likely cause problems that would need to be addressed. This acknowledgement provided opportunity for faculty to point out program shortcomings and helped establish early on, a collaborative environment to discuss

and solve problems. Faculty were additionally concerned about added workload; however, administration provided necessary project support and resources. Administration attended conferences and seminars together with core faculty members so that all were on the same page. Overall however, administration empowered faculty to own and implement C1's GP program.

Onboarding

Onboarding faculty went hand-in-hand with creating a sense of urgency. The extent to which faculty were provided opportunity to engage in their college's onboarding experience impacted faculty involvement. Five of the eight faculty interviewed were from C1, which provided multiple opportunities for faculty development regarding GP. Administration worked closely with faculty identifying key faculty members to join them at conferences and ensuring that information was communicated back to the rest of the faculty. Additionally, interviewees noted various methods used to help inform all faculty what GP was about, and why it would be advantageous for their college. These sources of support included: a shared college text, guest speakers, workshops, training, in-house workshops, an annual Pathways Day, and multiple venues of communication.

Conversely, the three faculty members interviewed at C2 had little-to-no communication regarding their GP program. They reported not being provided an opportunity to learn about, give input to, or give support for their program. What they learned about their program was found out after its implementation.

Senge contends that successful strategies come about as a result of a shared vision (SV); they require clear articulation of an idea to ensure that all involved are collaboratively working toward the end goal and each recognizes one's role in achieving the goal (1990). SV was clearly evident as faculty and administration from C1 worked together to ensure all were on the same page working toward the same purpose. Kouzes and Posner (2009) uphold that "The only visions that take hold are shared visions…" (para. 7). Faculty onboarding experiences at C1 also utilized SV encouraging teamwork and facilitating opportunities to ensure that all were provided insight into the College's GP vision.

Establish a Guiding Coalition

Kotter recommends enabling a small number of well-informed managers to ensure better communication and stronger teams. This was evident at C1; while there was distinct administrative

support, GP was predominately rolled-out and run by faculty. The interviewed faculty at C1 acknowledged intentional representation from each department and all were focused on student success. Faculty identified themselves as the champions of their GP effort. C1 efforts to establish a guiding coalition were obvious as faculty took on leadership roles and disseminated information to their peers.

Neither a sense of urgency nor a guiding coalition was prevalent at C2. One faculty acknowledged that various departments' involvement would have been needed to implement their GP program; thus, she recognized that there must have been some collaboration to get the job done but could not speak to where. All three faculty members at C2 noted an absence of communication and interdepartmental partnerships in their GP effort. Although in different directions, establishing a sense of urgency and creating a guiding coalition set the trajectory for faculty participation at both colleges.

Developing and Communicating the Vision for Buy- in

A clearly understood and agreed upon change vision enables development of a strategy and is vital to successful transformation. Strategic details emerge through collaborative planning and are necessary to ensure an institution is headed in the right direction (Kotter, 2006). Evidence of developing a change vision and communicating the vision for buy-in were clearly visible at C1; and faculty collaboration was the driving force behind these steps. C1 faculty used data to ask questions and make suggestions utilizing a systems thinking (ST) approach and appreciative inquiry (AI) among groups. Peer communication was heightened as faculty took on leadership roles, eliminating the need for administration involvement. Four of the five faculty members at C1 shared the details of their program with a clear focus of where it was headed. The one faculty whose enthusiasm level was not as strong remained intent on her role of advising her students and what she needed to do to effectively carry it out. The faculty interviewed at C1 indicated that their college was proactive in its efforts and open to suggestions for improvement. Status quo was not an option as they worked toward achieving their vision.

Kotter (2006) maintains that transformation is only possible when the masses are willing to help and sacrifice for the sake of change; and they need to be convinced through an inundation of credible communication about a cause they can get behind and strongly support. C1 faculty support can be attributed to the fact that they were integral in creating their college's strategy; they could confidently support it and were champions of marketing GP throughout their institution. Ongoing communication

consistently reinforced change at C1 where faculty noted eight different modes of communication spread across different groups within the college.

C2 faculty members were not able to confirm any means of communication. The results from this research indicated that communication had significantly impacted faculty collaboration and the force behind each college's GP programs.

Empower Broad-based Action

As C1 faculty took on leadership roles, they communicated their college's vision to colleagues and emboldened their peers to do the same. All five faculty members at C1 reported greater interdepartmental communication and collaboration as a result of their GP implementation process. A well-articulated strategy helped narrow job descriptions and allowed faculty to focus on and meet specific goals as they worked toward completing the big picture.

All three faculty at C2 indicated high levels of skepticism for their GP program, but could give little detail about the root of their uncertainty for C2's program. They reported that they did not understand the big picture; thus, they could not speak to specifics and did not recognize how they fit into or could contribute to the overall plan.

Incorporate Changes into the Culture

Kotter (2006) reasons that using the credibility coming from change efforts can be used to rid the system of ineffective policies and structures. He adds, that extreme transparency in doing so helps to break down silos and reduce nay-saying. C1 took full advantage of ST to eliminate what was not working. By expediting their GP rollout out, the College created a culture that encouraged opening the door to analysis, critique, and improvement. Furthermore, organizing peer-led groups enabled more open conversation and idea sharing.

Faculty at C2 could not persist or incorporate more change into their culture because they had not perceived any change had taken place. Either the change that resulted from GP implementation at C2 was not communicated well enough to the interviewed faculty, or no noticeable change took place. Either way, each could not speak specifically to how their role was impacted, nor could they identify how they could make an impact going forward. If C2 did have a culture change, it was not evident college-wide.

#2 Faculty Receptivity to Change

Research results indicated that faculty that had been involved in their college's faculty onboarding process had greater support for their college's GP project. Two of the five faculty members at C1 reported the intense workload involved in implementing GP; however, they added that they had been empowered by administration and supported by faculty, which made it a possible and worthwhile feat. Phelan (2015) reinforces that GP is an institution-wide approach; thus, faculty need to know where they fit into the process to effectively contribute. All five of these faculty members could easily convey their college's overall plan to implementing GP, and four of these five faculty exhibited complete confidence in the steps being taken to do so. Effective onboarding at C1 provided a platform for strong communication. Core faculty used their empowerment and knowledge about the program to share data and effectively communicate the program's value institution-wide. Additionally, these faculty assisted others in identifying their roles in the process.

This research identified a clear distinction between faulty who were effectively onboarded and those that were not. Faculty at C2, who reported no onboarding experience, had no concept of their institution's big picture; thus, they could not identify what their role was. Unlike the multiple modes of communication at C1, C2 faculty were unaware of any processes or plans in place, just that GP had been implemented. Understanding the big picture and the end result helped set the stage for collaboration on a SV and to design a plan to get there.

This research shows that the extent to which Kotter's model for transformative change was applied set the trajectory for each college's GP program. Culture change happens over time; however, a strong driving force sets the trajectory of success. Each step facilitated the set-up for the next action strengthening program support. Inversely, when a step was not thoroughly executed, a foundation was not established for the program to successfully move to the next stage.

A guiding coalition was evident from the very beginning at C1, where core faculty were driven out of their comfort zone, learned about the program, and were highly supported by administration. Trust and professionalism were apparent and manifested as the program gained support and momentum every step of the way. It was evident that because faculty understood the system in place, they were able to identify specific issues and knew who to work with or where to go to rectify problems. Interdepartmental

communication strengthened increasing collaboration and ongoing process improvement.

When the change model was not evident, communication was inadequate and opportunity for growth, collaboration, and broad-based action was stifled. Even though C2 faculty were involved in student success initiatives, they did not recognize their role in the overall scheme of GP, something that, according to Kotter (1995), should have been addressed at the onset. Given the need for each step to be followed consecutively, C2's program was operating at a disadvantage from the start.

As identified in Chapter Two, a systems thinking (ST) approach lends itself to employees who are committed to "real learning." Those involved in ST are prepared to be wrong and to mentally challenge themselves as they work collectively to envision the best possible outcomes (Senge, 2011). This mindset was evident at C1 when faculty relayed their college's vision and the role they played to best contribute to achieving their college's end goal. They could identify what was and was not working and knew where they were in the process. Additionally, the checks and balances that come about from a ST approach allowed for greater collaboration at C1 as faculty worked toward enhancing existing procedures and incorporating change into the culture.

#3 Implication of Faculty Support

Each of the eight interviewees exhibited high levels of professionalism and a strong commitment to student success. None gave any indication of being averse to change; however, the faculty who were "in the know" about the change taking place at their institution exhibited knowledge of, excitement for, and participation in their GP project as opposed to those who were not afforded equal opportunity to experience or contribute to their institution's GP project.

Kotter's change strategy mandates transformative change steps are followed chronologically; thus, the three faculty at C2 were disadvantaged from the beginning of their institution's GP project. From the onset, faculty at C2 failed to experience a sense of urgency or onboarding to help make change happen. Given the student support backgrounds of the three faculty at C2, they could have enhanced their college's GP program working out the logistical, communication, and readiness issues that they indicated were working against their GP program. Because of their noninvolvement, they did not.

Each C2 faculty member noted that they recognized the value of GP. They were determined to aid in student success efforts; however, they helped at a program level rather than contributing at an

institutional level because they were not a part of their college's GP coalition. These faculty members relayed their frustration about administration; yet they were not able to recognize or relay the specifics about the program that frustrated them. Therefore, they could not offer specific suggestions to fix the issues that were troublesome; nor had they established a relationship or conduit to do so.

Relationships between faculty and administration at C1 exhibited greater communication as both collaborated their school vision. By not taking part in collaborative ST efforts, faculty at C2 became more skeptical of the decisions made and those who made them, looking from the outside in rather than being a part of the change process.

Senge (Goodreads, n.d.) rationalizes that employees may not mind change; they mind being changed. He adds that they want to be involved in the change process. This research showed that the level of faculty involvement gained or lost momentum based upon one's understanding or their role and their institution's end goal. Whereas the guiding coalition among those researched at C1 strengthened, faculty at C2 remained uninvolved, unaware of their College's vision or how they could aid in its realization.

Cynicism plays a major role in creating a barrier to change and can come from different places (Qian & Daniels, 2008). Qian notes that day-to-day cynical workplace communication can have an influencing and contagious effect and is likely followed by resistance. Kotter supports this finding and asserts that ongoing communication, involvement, and affirmation of accomplishments are necessary to bond coalition members and to prevent their uniting with cynic groups that can negatively thwart progress. C2 faculty did not exhibit resistance, but each displayed obvious cynicism in regard to their GP program. This cynicism was rooted in: lack of communication; a belief that administration was not completely transparent; non-involvement; and lack of multi-level, interdepartmental collaboration in institutional change efforts.

Emergent Themes

As noted by Kotter and Senge, collaboration, communication, transparency, and trust are common themes surrounding discussion on transformative change within the business sector. Bailey, Jaggers, & Jenkins (2015) refer to these factors throughout their research and in their book, ***Redesigning America's Community Colleges: A Clearer Path to Student Success***. This research recognized the

necessity of each of these factors, as well as respect for professionalism, to effectively manage transformative change in higher education. This research also noted a correlation between their presence and the trajectory of change implementation for GP projects. Also found was that the lack of these factors increased the presence of cynicism toward change.

Table 4: Examples of Emergent Themes — Collaboration, Communication, Transparency, Trust, and Professionalism

	COLLAB	COMM	TRANS	TRUST	PROF
Multidimensional / departmental involvement in change process	X	X	X		
Swift implementation requiring group problem solving (to foresee and address post implementation)	X		X		X
Interdepartmental peer-led information debriefing / sharing (T)	X	X	X		
Ongoing process improvement	X	X			
Multiple modes- shared text, guest speakers, in-house and remote training, workshops, annual Pathways Day, email		X			
Faculty leadership teams communicating vision to peers, emboldening peers		X			X
Inter-departmental debriefing meetings/ share best practices meetings	X	X	X		
Forced faculty team leads admitted that swift implementation would likely cause problems that would need to be addressed		X	X		
Interdepartmental debriefing meetings			X		
Data driven decision making		X	X		
S/T critique and improvement			X		X
Faculty created, supported, and championed program (well- communicated program)		X		X	
Empowered by administration				X	
Commitment to "real learning" through a ST approach					X
Administration empowered faculty decision making from the onset				X	X
Administration backing and support				X	X
Smaller and well-informed managers to ensure better communication and stronger teams	X	X		X	X
Faculty run/peer-led groups	X				X
Faculty helping faculty identify roles in process	X				X

Communication or lack of communication effected change at every turn. Russell (2013) asserts that whether people accept change often depends on how it is communicated. Similarly, Senge reasserts that employees want to be involved in the change process; he encourages the use of ST to engage

employees and combine their strengths to formulate optimal solutions. The extent to which faculty were engaged impacted the utilization of ST and overall faculty involvement, receptivity, and support of their college's GP program. Additionally, collaboration fostered through ST empowered faculty as solutions were discussed, criticized, and optimized allowing faculty to take on leadership roles and communicate to their colleagues. This further enabled strengthening of the GP coalition.

Faculty not involved in the planning of their college's GP project:

- Exhibited cynicism for administration and their methods
- Noted that GP does not affect what they do in their classrooms
- Had not received information or updates.

Implications of not getting full-faculty support included:

- Smaller guiding coalition
- Less faculty input with new approaches and best practices
- Diminished interdepartmental communication
- Growing cynicism that can lead to resistance.

When asked about culture change over the course of their GP implementation, faculty at C2 indicated an increase in negativity toward administration and their handling of change. All three-interviewed faculty noted skepticism about change and administration's handling of change. All faculty at both institutions were subject to instability and uncertainty; however, at C1 collaboration seemed to transform concern into support and excitement that resulted in a willingness to try the next best thing.

Conclusion

Data collected in this research were used to analyze the effects of the presence or absence of change theories on faculty in institutions implementing GP programs. The analysis from the data collected in this research showed that there was a correlation between the utilization of Kotter and Senge's change processes and faculty involvement in institutional change. Faculty buy-in, involvement, and persistence in GP implementation were positively impacted by the employment of change strategies when properly

administered, as was the trajectory of faculty involvement. Absence of change strategy resulted in inadequate communication and minimal opportunity for growth, collaboration, and broad-based action. Faculty involved in ST worked collectively to envision the best possible outcomes, as well as to enhance existing procedures and incorporate change into the culture. Communication, collaboration, transparency, trust, and professionalism emerged as themes necessary for a positive impact on change while cynicism contributed to negativity and diminished involvement. The trajectory of GP programs was established from the onset. Following Kotter's change theory as intended permitted Senge's ST application to take hold and strengthen as each stage of the process progressed. Conversely, when Kotter's steps were not adhered to, there was an absence of ST and faculty involvement was not effectively utilized. Chapter Six will discuss conclusions, implications of this research, delimitations and limitations, and recommendations for community colleges and future research possibilities.

Chapter Six: Discussion, Implications, and Recommendations

Introduction

This study sought to gain perspective from faculty regarding their perceptions of and involvement in the implementation process of guided pathways (GP) programs at their respective institutions. The information gained from this research is intended to elucidate effective strategies for implementing transformative institutional change involving faculty.

This chapter discusses the delimitations and limitations of this study, its implications, and makes recommendations for further investigation.

Research Summary

Qualitative research methodology was used to address the research questions and to provide insight into best practices from a faculty perspective at institutions implementing guided pathways. Institutional change processes were analyzed to identify the extent to which Kotter and Senge's change theories were utilized and whether or not their application affected change implementation. Research was conducted at two Midwestern institutions that belonged to and received guidance from their state's community college student success organization.

Convergent themes including communication, collaboration, transparency, trust, and professionalism emerged from the qualitative data, which supported the transformative change strategies of Kotter and Senge. Additionally, cynicism appeared repeatedly as a negative contributor to change implementation, reinforcing these two change gurus' theories. Each college provided examples of how these themes were or were not addressed, which ultimately determined each college's impact on faculty receptivity to change and the robustness of their GP implementation.

Implications of Research

Although this study intended to look at like institutions, there was an overarching awareness of

the differences between the two colleges and each's level of faculty acceptance and commitment to their GP projects. Personal stories shared by faculty regarding their experience with GP implementation provided insight regarding both best and inferior practices for creating support for change. Faculty support for and dedication to student success were never in question in this research study; however, the difference between institutions showed that when faculty were not involved in the change process, effective change could be thwarted or jeopardized without full faculty contribution.

In addition to noting institutional differences, this study also revealed that faculty were not necessarily averse to change. Based on the literature review, this research had expected to observe faculty resistance to GP change. Resistance, however, was not the case as faculty were open to and in support of student success initiatives and the idea of GP. What this research found, was that when faculty were not directly informed and involved in change initiatives, institutions lost support for innovation and robust change implementation.

Recommendations for Guided Pathways Colleges

Based on the information gathered from this research the following practices are recommended to ensure a strong start, full institutional support, and ongoing evolvement of guided pathways programs:

- Intentional, institution-wide conversations about GP to plan processes and specifics prior to and throughout the implementation process

  This research has shown that recognizing imperfections in a program fostered a systems thinking approach as faculty collaborated to build upon and improve current practices.

- Multi-departmental and multi-level representation and participation

  Guided pathway's college-wide reach necessitates that its efforts are communicated to and understood by all stakeholders and that all see the big picture as well as their role in it.

- Ongoing and regularly scheduled meetings to discuss the status of GP, consider ways to improve upon existing practices, and generate new ideas to move forward

  As GP takes hold, continuous process improvement efforts will be necessary to ensure that changes stick, and practices become institutionalized.

- Dissemination of information through smaller and familiar groups to ensure the message is understood, and questions are asked and answered

  Faculty should have direct access to point people as well as have opportunity to attend regularly scheduled information sessions, such as departmental meetings, to provide ongoing communication. Communication should be deliberate, transparent, and two-way providing a venue to express concerns as well as give suggestions. All ideas should be acknowledged and considered.

- An ever-present guiding coalition continually pulling reinforcements from all areas of the college

  Reaching out to those who are averse to or question impending change provides varied perspective, can reduce naysaying, and strengthens the guiding coalition.

One of the strengths of C1 was its ability to move forward with change and strengthen its processes from lessons learned. Acknowledging ineffective strategy from the onset allowed all involved to take risk for the sake of innovative change as well as set an environment for ongoing improvement. While this change culture was not evident among the faculty at C2, recognizing this fact and focusing on the above reference points can provide an opportunity for the College to reset the trajectory of its GP program and to strengthen its guiding coalition going forward.

Overall change culture at C2 was not evident. However, this institution's change culture could be cultivated going forward through greater transparency; admission that the program has not been effectively communicated amongst faculty; acknowledgment of the need for greater faculty involvement; and a focus on the lessons learned. Institutional leadership at C2 can better foster an environment of innovation and change by providing deliberate opportunity for faculty collaboration and by empowering faculty to take ownership of the organization's planning, implementation, and monitoring of GP change.

Understanding how communication, collaboration, transparency, trust, and professionalism is interwoven through Kotter and Senge's change processes is essential to thoroughly thought-out, practiced, and ongoing change. Institutions can use information from this research to guide their change practices strengthening GP implementation and bringing faculty into the fold to contribute and better enable change to take hold.

Delimitations and Limitations

Delimitations imposed by the researcher included purposive sampling that may have resulted in different levels of initial faculty involvement. This study sought to gain perspective from two-like institutions that had gone through similar processes; however, faculty at C1 may not have been representative of the majority at their institution given their high level of involvement. Conversely, the faculty at C2 may not have been representative of the institution's faculty given their lack of involvement in their GP planning.

Limitations of this study included the assumption that all participants responded openly and honestly. Another limitation that may have been present in this study could include accurate recall; as time passed, participants' recall may have been jeopardized. Researcher bias may have been present given that the researcher was on a team tasked with structuring the academic pathways at her own institution. Preformed opinions, the researcher's role within her own college, and the impact participants' viewpoints may have had on the researcher were necessary to address as possible biases within this study. It may also be possible that interview questions were not interpreted as intended.

Recommendations for Future Research/Projects

If community colleges are to continue their rich tradition of keeping pace with societal needs, remaining innovative and competitive, and maximizing student success, they must continue to recognize and proactively plan for the change necessary to do so. This research revealed a number of best practices for implementing GP change as well as identified further areas to research. The following recommendations have been made based on the research conducted, the results of the data collected, and the themes that emerged.

1. Broaden Site Scope

Because of time and resource limitations, only two Midwestern colleges were researched. Exploration of a larger sample of colleges implementing GP throughout the country may provide a broader understanding of implementation efforts and shed light on what faculty members in similar roles are doing at other institutions. Researching how other institutions formulate their strategic planning teams and disseminate information campus-wide could enhance communication practices, initiate more transparent efforts, and provide additional strategies for gaining faculty support.

2. Identify Alternative Options for Communication and Collaboration

Based on the findings from Chapter Four, it was evident that the GP program was not clearly articulated and understood by all of the faculty at one of the researched institutions. Interviewed faculty indicated that there must have been some collaboration indicating that there was a GP team working together at this institution. Pinpointing where communication may have broken down and why might provide information for future and better communication as well as stronger inter-departmental support for

change. This information could be obtained through a campus survey, focus groups, or elicited through inter-departmental meetings to ensure that emails are not missed in the future.

3. Create a Guided Pathways Implementation Handbook

A number of best practices emerged from the researched institutions as well as practices that hindered faculty support. Practices mentioned in this research could be combined with results from a faculty survey regarding their GP experiences, whereby they would rate positive and negative practices, as well as provide suggestions from helpful experiences or lessons learned. Gathered data could be used to develop a guided pathways handbook with suggestions of "dos and don'ts" as well as step-by-step best practices for institutions implementing GP change.

Conclusion

This research identified a correlation between the utilization of Kotter and Senge's change strategies and their impact on faculty receptivity to and the robustness of change implementation at two Midwestern GP colleges. Kotter (2006) maintains that transformation is only possible when the masses are willing to help and sacrifice for the sake of change; and they need to be convinced through an inundation of credible communication. Strong faculty receptivity and support for GP can be attributed to whether or not faculty played an integral role in creating their college's strategy, could confidently support it, and were champions of GP throughout their institution.

Adhering to Kotter's change processes enabled Senge's systems thinking practices to take hold, which resulted in team problem solving efforts to formulate effective and sustainable solutions. Additionally, utilization of these change models set the trajectory for faculty support and commitment.

The variation between the two researched colleges highlighted best and least desirable practices for change processes. The best practices provided examples of how faculty support and trust emerged from multiple sources of ongoing communication, teamwork, transparency, and respect for individuals' professionalism. Further research can be done to share best practices and to determine additional methods of communication that could be used to enhance faculty involvement and collaboration.

References

Ackerman, L. (1997) ***Development, transition or transformation: the question of change in organisations***. In: Van Eynde, D., Hoy, J and Van Eynde, D (eds) ***Organisation Development Classics***. San Francisco, CA: Jossey Bass.

Amabile, T. & Kramer, S. J. (2011, May). The power of small wins. ***Harvard Business Review.*** Retrieved from https://hbr.org/2011/05/the-power-of-small-wins

American Association of Community Colleges. (2006). Mission Statement. Retrieved from AACC http://www.aacc.nche.edu/About/Pages/mission.aspx

American Association of Community Colleges. (2012). Reclaiming the American dream: Community colleges and the nation's future. 21st- century commission on the future of community colleges. Washington, DC. Retrieved from http://www.aacc.nche.edu/21stCenturyReport

American Association of Community Colleges. (n.d.). CC growth over the past 100 years. Retrieved from https://www.aacc.nche.edu/AboutCC/history/Pages/ccgrowth.aspx

Anderson, D., & Anderson, L. A. (2001). ***Beyond change management: Advanced strategies for today's transformational leaders.*** San Francisco, CA: Jossey-Bass / Pfeiffer. Retrieved from http://www.infopaceindia.com/upload/Advanced%20Strategies%20for%20Today%27s%20Transformational%20Leaders.pdf

Anderson, D., & Anderson L. A. (2010). ***Beyond change management how to achieve breakthrough results through conscious change leadership (2nd ed.)***. San Francisco, California: Pfeiffer.

Aronson, D. (n.d.). Overview of systems thinking. Retrieved from https://managementhelp.org/misc/defn-systemsthinking.pdf

Atewell, P., Heil, S., & Reisel, L. (2012). What is academic momentum? And does it matter? ***Education, Evaluation and Policy Analysis***, 34(1), 27-44.

Bailey, T. R., Jaggers, S. S. & Jenkins, D. (2015). ***Redesigning America's community colleges: A clearer path to student success.*** Cambridge, MA: Harvard University Press.

Bailey, T., Jaggars, S. S., & Jenkins, D. (2015). What we know about guided pathways. New York, NY: Columbia University, Teachers College, Community College Research Center. Retrieved from http://ccrc.tc.columbia.edu/media/k2/attachments/What-We-Know-Guided-Pathways.pdf

Barnes, Y., DeCamillis, S., Hert, F., Holoman, L., Hoxie, T., Klein, K., Peruski, D., Stakley, D., Vitanza, J., & Wanink, D. (n.d.). What does trust have to do with it?: The leader's role in building and maintaining trust. Retrieved from https://fsulearn.ferris.edu/bbcswebdav/pid-2130637-dt-content-rid-39555526_1/courses/12094.201801/12094.201801_ ImportedContent_20180306082047/DCCL_WhitePaper_Trust_RBC1%281%29.pdf

Beckhard, R., & Harris, R. (1987). ***Organizational transitions***. Reading, MA: Addison- Wesley.

Bernard, H. R. (2002). ***Research methods in anthropology: Qualitative and quantitative approaches***. Walnut Creek, CA: 3rd Alta Mira Press.

Bloemraad, I., Dunlap, M., & Han, H. (2015). Faculty on the front line: Reflections on research, teaching, and service. Association of American Colleges and Universities. Retrieved from https://www.aacu.org/diversitydemocracy/2015/fall/bloemraad

Bogdan, R. C., & Biklen, S. K. (2011). ***Qualitative research for education: An introduction to theories and methods*** (5th ed.). Boston: Pearson.

Brikci, N. & Green, J. (2007). A guide to using qualitative research methodology. Retrieved from https://evaluation.msf.org/sites/evaluation/files/a_guide_to_using_qualitative_research_methodology.pdf

Brownstein, R. (2018, May 3). American education hits a dangerous milestone. ***The Atlantic.*** Retrieved from https://www.theatlantic.com/politics/archive/2018/05/american-higher-education-hits-a-dangerous-milestone/559457/

Burgess, H. & Spangler, B. (2003). Consensus building. Retrieved from https://www.beyondintractability.org/essay/consensus_building

Byrk, A. S., & Schneider, B. (2002). ***Trust in schools: A core resource for improvement.*** New York: Russell Sage.

Carnavele, A., Smith, N. & Strohl, J. (2013). Recovery: Job growth and education requirements through 2020. Retrieved from https://cew.georgetown.edu/cew-reports/recovery-job-growth-and-education-requirements-through-2020/

Caruth, G.D. & Caruth, D. L. (2013, April). Understanding resistance to change: A challenge for universities. ***Turkish Online Journal of Distance Education14***(2), 12-21.

Clarke, J. S., Eliett, C. D.,Bateman, J. M., & Rugutt, J. K. (1996). Faculty receptivity/resistance to change, personal and organizational efficacy, decision deprivation and effectiveness in research 1 universities. ***Proceedings of the Association for the study of higher education meeting,*** 21.

Cheldelin, S. I. (2000). Handling resistance to change. In ***Leading academic change: Essential roles for department chairs***. Edited by Lucas, A. F. & Assoc. San Francisco: Jossey Bass.

Community College Resource Center. (2015). Implementing guided pathways: Tips and tools. Community college resource center. Teachers College. Columbia University. Retrieved from http://ccrc.tc.columbia.edu/media/k2/attachments/Implementing-Guided-Pathways-Tips-Tools.pdf

Community College Resource Center. (2015). What we know about guided pathways: Helping students to complete programs faster. Retrieved from https://ccrc.tc.columbia.edu/media/k2/attachments/What-We-Know-Guided-Pathways.pdf

Community College Resource Center. (n.d.). Retrieved from http://ccrc.tc.columbia.edu/Community-College-FAQs.html

Creswell, J. W. (2004). ***Educational research: Planning, conducting, and evaluating quantitative and qualitative research*** (2nd ed.). Columbus, OH: Merrill Prentice Hall

Creswell, J. W. (2007). ***Qualitative inquiry and research design: Choosing among five approaches***. Thousand Oaks, CA; Sage.

Creswell, J. W. (2009). ***Research Design: qualitative, quantitative and mixed approaches*** (3rd ed.). Thousand Oaks, CA: Sage.

Creswell, J. W., & Plano Clark, V. (2011). ***Designing and conducting mixed methods research*** (2nd ed.). Thousand Oaks, CA: Sage.

Creswell, J. W. (2013). ***Qualitative inquiry & research design*** (3rd ed.). Thousand Oaks, CA: Sage.

Denzin, N. K., & Lincoln, Y. S. (2013). ***Collecting and interpreting qualitative materials*** (4th ed.). Thousand Oaks, CA: Sage

DeGraff, J, & Quinn, S. E. (2006). ***Leading innovation: How to jump start your organization's growth engine.*** New York: McGraw-Hill Companies, Inc.

DeParle, J. (2012, January 4). Harder for Americans to rise from lower rungs. ***New York Times.*** Retrieved from https://www.nytimes.com/2012/01/05/us/harder-for-americans-to-rise-from-lower-rungs.html

Drury, R. L. (2003). Community colleges in America: A historical perspective. ***Inquiry, 8*** (1). Retrieved from https://files.eric.ed.gov/fulltext/EJ876835.pdf

EAB. (2016). The evolving role in student success. Retrieved from https://www.eab.com/-/media/EAB/Research-and-Insights/AAF/White-Papers/33174-EAB-AAF-White-Paper-Faculty-Role-Student-Success

Evans, L., & Chauvin, S. (1993). Faculty developers as change facilitators: The concerns- based adoption model. University of Nebraska, Lincoln. Retrieved from http:// digitalcommons.unl.edu/cgi/viewcontent.cgi?article=1277&context=podimproveacad

Evered, R. & Louis, M. R. (1981). Alternative perspectives in the organizational sciences: "Inquiry from the inside" and "inquiry from the outside". ***Academy of Management, 6***(3), 385-395. Retrieved from https://calhoun.nps.edu/bitstream/handle/10945/45978/Louis_Alternative_Perspectives_1981.pdf?sequence=1&isAllowed=y

Fink, L. D. (2013). ***Creating significant learning experiences: An Integrated approach to designing college courses***. San Francisco, CA: Jossey Bass.

Firestone, W. A. (1987). Meaning in method: The rhetoric of quantitative and qualitative research. ***Educational Researcher,16***(7), 16-21.

Fitzgerald, D. (2003, April 29). Shared vision: A key to project success. Retrieved from https://www.techrepublic.com/article/shared-vision-a-key-to-project-success/

Fullan, M. G. (2003). ***Change forces with a vengeance.*** London: Routledge Falmer Press.

Gleeson, B. (2017, October 31). Strategies for making organizational change stick and building a bright future. ***Forbes***. Retrieved from https://www.forbes.com/sites/brentgleeson/2017/10/31/strategies-for-making-organizational-change-stick-and-building-a-bright-future/#2d484fbb6f7a

Goodreads. (n.d.). Peter Senge quotes. Retrieved from https://www.goodreads.com/author/quotes/21072.Peter_M_Senge

Grossman, J. B., Quint, J., Gingrich, J., Cerna, O., Diamond, J., Levine, A., Mdrc. (2015). Changing community colleges: Early lessons from completion by design. Retrieved from http://prox1.harper.cc.il.us:2048/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=eric&AN=ED560063&site=ehost-live

Guba, E. G. & Lincoln, Y. S. (2005). Paradigmatic controversies, contradictions, and emerging confluences. In N. K. Denzin & Y. S. Lincoln (Eds.). ***The Sage handbook of qualitative research.*** (3rd ed. pp. 191-215). Thousand Oaks, CA: Sage.

Guze, P.A. (1995). Cultivating curricular reform. ***Academic Medicine: Journal of the Association of American Medical Colleges, 70***(11), 971-973.

Hobson, A. (2004). ***The Oxford dictionary of difficult words: More than 10,000 words you really need to know***. Oxford, UK: Oxford University Press.

Hussar, W.J., and Bailey, T.M. (2011). Projections of Education Statistics to 2020 (NCES 2011-026). U.S. Department of Education, National Center for Education Statistics. Washington, DC: U.S. Government Printing Office. Retrieved from https://nces.ed.gov/pubs2011/2011026.pdf

IPEDS. (2016). Graduation Rates. Retrieved from https://nces.ed.gov/pubs2017/2017046.pdf

Jenkins, D., & Cho, S. W. (2012). Get with the program: Accelerating community college students' entry info and completion of programs of study (CCRC Working Paper No. 32). New York, NY: Columbia University, Teachers College, Community College Resource Center.

Joliet Junior College. (n.d.). First community college. Retrieved from https://www.jjc.edu/about-jjc/history

Joliet Junior College. (n.d.). History. Retrieved from http://www.jjc.edu/college-info/Pages/history.aspx

Joseph, C. (n.d.). The affects attitude has on workplace productivity. Retrieved from http://smallbusiness.chron.com/effects-attitude-workplace-productivity-1777.html

Keller, G. (1983). ***Academic strategy: The management revolution in American higher education.*** Baltimore, MD: John Hopkins University Press.

Kessler, E. H. (2013). ***Encyclopedia of Management Theory***. Thousand Oaks, CA: Sage Publications

Kotter, J. P. (1995, May-June). Leading change: Why business transformation efforts fail. ***Harvard Business Review*** (1-10). Retrieved from https://hbr.org/1995/05/leading-change-why-transformation-efforts-fail-2

Kotter, J. (2011, May 3). Breaking down Silos. ***Forbes***. Retrieved from https://www.forbes.com/sites/johnkotter/2011/05/03/breaking-down-silos/#6f3b2a5e63b6

Kotter, J. P. (2012). ***Leading Change.*** Boston, MA: Harvard Review Press.

Kotter, J.P. (2012, November). "Accelerate!" ***Harvard Business Review*** (44-58).

Kouzes, J. M. & Posner, B. (2009, January). To lead, create a shared vision. ***Harvard Business Review.*** Retrieved from https://hbr.org/2009/01/to-lead-create-a-shared-vision

Kraemer, J. (2013, May 9). Statistic of the month: Comparing community college completion rates. Retrieved from http://ncee.org/2013/05/statistic-of-the-month-comparing-community-college-completion-rates/

Krouse, J. (2018, May 22). Higher education is a business- is that so bad? ***Digitalist Magazine.*** Retrieved from https://www.digitalistmag.com/digital-economy/2018/05/22/higher-education-is-business-is-that-so-bad-06167601

Kruegar, A. B. (2012, January 12). The rise and consequences of inequality in the United States. Retrieved from https://obamawhitehouse.archives.gov/sites/default/files/krueger_cap_speech_final_remarks.pdf

Land-Grant College Act of 1862. (n.d.). In Encyclopedia Britannica online. Retrieved from https://www.britannica.com/topic/Land-Grant-College-Act-of-1862

Lane, I. F. (2007). Change in higher education: Understanding and responding to individual and organizational resistance. ***Journal of Veterinary Medical Education,34***(2), 85-92.

Lichtman, M. (2013). ***Qualitative research for the social sciences***. Thousand Oaks, CA: Sage.

Lincoln, Y. S., & Guba, E. (1985). ***Naturalistic inquiry***. Newbury Park, CA: Sage.

Lincoln, Y. S., Lynham, S. A., & Guba, E. G. (2011). Paradigmatic controversies, contradictions, and emerging confluences, revisited In N. Denzin and Y. S. Lincoln (Eds.), ***The Sage handbook of qualitative research***. Thousand Oaks, CA: Sage.

Managing group decision making: Advantages and disadvantages of group decision making. (n.d.). Retrieved from https://courses.lumenlearning.com/boundless-management/chapter/managing-group-decision-making/

Marris, P. (1975). ***Loss and change.*** New York: Anchor Press/Doubleday.

McBride, K. (2010). Leadership in higher education: Handling faculty resistance to technology through strategic planning. ***Academic Leadership 8***(4),39.

Merriam, S. B. (1998). ***Qualitative research and case study applications in education***. San Francisco, CA: Jossey-Bass

Merriam S. B. (2002). ***Assessing and evaluating qualitative research.*** In S. B. Merriam (Ed.), ***Qualitative research in practice: Examples for discussion and analysis***. (pp. 18-33). San Francisco, CA: Jossey Bass

Merriam, S.B., & Tisdell, E. J. (2016). ***Qualitative research: A guide to design and implementation.*** San Francisco, CA: Jossey-Bass.

Miles, M. & Huberman, M. (1994). ***Qualitative data analysis*** (2nd ed.). Thousand Oaks, CA: Sage.

National Center for Public Policy and Higher Education and the Southern Regional Education Board. (2010). Beyond the rhetoric: Improving college readiness through coherent state policy. Retrieved from https://www.sreb.org

National Research Council. (1995). 'History and overview of the land grant college system' in ***Colleges of agriculture at the land grant universities***. Washington D.C.: National Academies Press. Retrieved from https://www.nap.edu/read/4980/chapter/2

Norris, K. & Berry, A. (n.d.). Meeting the needs of diverse students in higher education. Retrieved from https://www.plymouth.ac.uk/uploads/production/document/path/6/ 6085/Meeting_diverse_needs_Presentation.pdf

Obama, B. (2010, January 7). State of the union: President Obama's speech. ABC News. Retrieved from https://abcnews.go.com/Politics/State_of_the_Union/state-of-the-union-2010-president-obama-speech-transcript/story?id=9678572

OECD. (2012). Education at a glance: OECD indicators 2012. Retrieved from https://www.oecd.org/unitedstates/CN%20-%20United%20States.pdf

Pattengale, J. (2010). What faculty members need to know about retention. [White paper]. Madison, WI: Magna Publications. Retrieved from https://www.baylor.edu/content/services/document.php/231350.pdf

Patton, M. Q. (1990). ***Qualitative evaluation and research methods.*** Beverly Hills, CA: Sage.

Patton, M. Q. (2002). ***Qualitative research and evaluation methods*** (3rd ed.). Thousand Oaks, CA: Sage.

Patton, M. Q. (2015). ***Qualitative research and evaluation methods*** (4th ed.). Thousand Oaks, CA: Sage.

Phelan, D. J. (2016) ***Unrelenting change, innovation, and risk: Forging the next generation of community colleges***. Lanham, MD: Rowman & Littlefield.

Pope, C., Ziebland, S., & Mays, N. (2000). Qualitative research in health care: Analysing qualitative data. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1117368/pdf/114.pdf

Public Agenda & Achieving the Dream (2011). ***Engaging adjunct and full-time faculty in student success innovation.*** Retrieved from https://www.pathwaysresources.org/wp-content/uploads/2018/04/EngagingAdjunctFullTimeFaculty.pdf

Qian, Y., & Daniels, T. D. (2008). A communication model of employee cynicism toward organizational change. ***Corporate Communications, 13***(3), 319-322.

Radford, A.W., Berkner, L., Wheeless, S.C., Shepherd, B. (2010). Persistence and attainment of 2003–04 beginning postsecondary students: After 6 years (NCES 2011-151). Washington, DC: National Center for Educational Statistics. Retrieved from www.nces.ed.gov/pubs2011/2011151.pdf

Reed, M. (2018, February 18). Accountability for what? ***Inside Higher Ed***. Retrieved from https://www.insidehighered.com/blogs/confessions-community-college-dean/accountability-what

Research Rundowns (n.d.). Qualitative research design. Retrieved from https://researchrundowns.com/qual/qualitative-research-design/

Richards, L. (2015). ***Handling qualitative data*** (3rd ed.). London: Sage.

Roberts, S. (2018, June 22). How to drive transformation with communication. ***Forbes.*** Retrieved from https://www.forbes.com/sites/forbestechcouncil/2018/06/22/how-to-drive-transformation-with-communication/#5d9493c64ddd

Root, G. N. (n.d.). The effects of negativity in the workplace. Retrieved from http://smallbusiness.chron.com/effects-negativity-workplace-11655.html

Rouse, M. (n.d.). Systems thinking. Retrieved from https://searchcio.techtarget.com/definition/systems-thinking

Rugaber, C. S. (2014, April 2). More Americans see middle class status slipping. ***Associated Press***. Retrieved from http://www.usatoday.com/story/money/personalfinance/2014/04/02/more-americans-see-middle-class-status-slipping/7220635/

Russell, J. E. A. (2013, December 1). How to create change in the workplace. ***The Washington Post.*** Retrieved from https://www.washingtonpost.com/business/capitalbusiness/how-to-create-change-in-the-workplace/2013/11/27/9d62f8de-5548-11e3-835d-e7173847c7cc_story.html?utm_term=.e148190d985f

Salaman, M. (2017, June 9). What we can learn from guided pathways skeptics. ***Community College Daily***. Retrieved from http://www.ccdaily.com/2017/06/can-learn-guided-pathways-skeptics/

Saez & Zucman (2018, June). A tale of three classes in the USA. ***The Atlantic.*** Retrieved from https://www.theatlantic.com/magazine/archive/2018/06/the-birth-of-a-new-american-aristocracy/559130/

Scott-Clayton, J. (2011). The shapeless river: Does a lack of structure inhibit students' progress at community colleges? Retrieved from https://ccrc.tc.columbia.edu/publications/lack-of-structure-students-progress.

Senge, P. M. (1990). ***The fifth discipline: The art and practice of the learning organization.*** USA: Doubleday.

Senge, P. (2011, September 13). Navigating webs of independence. [Video File]. Retrieved from https://www.youtube.com/watch?v=HOPfVVMCwYg

Senge, P. M. (2006). ***The fifth discipline: The art and practice of the learning organization***. USA: Doubleday.

Senge, P. M. (2014, August 5). Introduction to systems thinking. [Video File]. Retrieved from https://www.youtube.com/watch?v=eXdzKBWDraM

Shapiro, D. & Dundar, A. (2014). Signature report. Completing college: A national view of student attainment rates – Fall 2008 cohort. Retrieved from https://nscresearchcenter.org/wp-content/uploads/SignatureReport8.pdf

SHEEO State Higher Education Executive Officers Association (2018). SHEF: FY 2017 State higher education finance. Retrieved from http://www.sheeo.org/sites/default/files/SHEF_FY2017.pdf

Sirkin, H. L., Keenan, P., & Jackson, A. (2005, October). The hard side of change management. ***Harvard Business Review.*** Retrieved from https://hbr.org/2005/10/the-hard-side-of-change-management

Smyre, R. & Richardson, N. (2016). ***Preparing for a world that doesn't exist – yet: Framing a second enlightenment to create communities of the future.*** Changemakers Books: UK.

Stake, R. E. (1995). ***The art of case study research***. Thousand Oaks, CA: Sage.

Stavros, J. M., Godwin, Lindsey N., & Cooperrider, D. L., (2015). Appreciative inquiry: Organization development and the strengths revolution. In Rothwell, W., Sullivan, R., & Stavros, J. (Eds.), ***Practicing Organization Development: A guide to leading change and transformation (***4th ed.***)***. William Rothwell, Roland Sullivan, and Jacqueline Stavros (Eds). Hoboken, NJ: Wiley & Sons.

Stewart, M. (2018, June). The 9.9 percent is the new American aristocracy. ***Atlantic***. Retrieved from https://www.theatlantic.com/magazine/archive/2018/06/the-birth-of-a-new-american-aristocracy/559130/

Stoller, E. (2014, June 5). The business of higher education: Let's be honest. ***Inside Higher Ed.*** Retrieved from https://www.insidehighered.com/blogs/student-affairs-and-technology/business-higher-education

Systemsthinker.com (n.d.). Retrieved from https://www.bing.com/images/search?view=detailV2&ccid=GNrvNxts&id=0E9A049264EFECFC9F7ABA8EF038E3684596125D&thid=OIP.GNrvNxtsYrWy_h2R5mCU5QHaF7&mediaurl=https%3a%2f%2fthesystemsthinker.com%2fwp-content%2fuploads%2fimages%2fvolume-11%2fsystems-thinking-method-comprises-four-steps.jpg&exph=607&expw=758&q= systems+thinking+steps&simid=608040034205631477&selectedIndex=0&ajaxhist=0

TechPudding. (n.d.). Thinking Senge: Creative vision and shared tension. Retrieved from https://techpudding.com/2011/02/10/thinking-senge-creative-tension-and-shared-vision/

Townsin, J. (2013, July 12). Appreciative inquiry (n.d.). Appreciative inquiry [Video File]. Retrieved from https://www.youtube.com/watch?v=QzW22wwh1J4

Tracy, S. J. (2013). ***Qualitative research methods***. West Sussex, UK: Wiley-Blackwell.

Trainor, S. (2015, October 20). How community colleges changed the whole idea of education in America. ***Time Magazine.*** Retrieved from http://time.com/4078143/community-college-history/

Vaughan, G. B. (2006). ***The community college story*** (3rd ed.). Washington, D.C.: American Association of Community Colleges.

Webster, V. & Webster, M. (n.d.). Successful change management- Kotter's 8-step change model. Retrieved from https://www.leadershipthoughts.com/kotters-8-step-change-model/

Westin, L. (2014, September 9). OECD: The US has fallen behind other countries in college completion. ***Business Insider***. Retrieved from http://www.businessinsider.com/r-us-falls-behind-in-college-competition-oecd-2014-9

What is systems thinking? (n.d.). Retrieved from http://www.thinking.net/Systems_Thinking/OverviewSTarticle.pdf

Why is shared vision important to an organization? (n.d.). Retrieved from https://www.reference.com/business-finance/ shared-vision-important-organization-895c5b9fcb5d6175#

Yin, K. R. (2003). ***Case study research: Design and methods*** (3rd ed.). Thousand Oaks, CA: Sage.

Zell, D. (2003). Organizational changes as a process of death, dying and rebirth. ***Journal of Applied Behavioral Science***, 39(1) 73-96.

Appendix A: Interview Protocol

Interview Questions

These questions will be used to guide the interview process. The interview will last approximately one hour.

Today I am interviewing _____ from _____.

Date _____ Location_____

Notes:

- Would you tell me a little about your role at _____ and how long you've been there? _____
- How long has your college been using Guided Pathways (GP)? When did it start?
- When were you first notified that your institution would be implementing GP?
- How did you first hear that your institution would be implementing GP?
- What were your thoughts when you first heard about your institution implementing GP?
- What had you known about GP?
- How was faculty input solicited in the planning stage of GP?
- What if any was your role at the onset of implementing GP?
- How would you describe overall faculty ***morale before*** GP was implemented? How about ***during*** its implementation? Can you give some examples?
- What did your institution do, if anything to onboard faculty?
- Do you think the onboarding was adequate?
- [Thinking about the previous question, in your opinion, what, if anything could have been done differently?]
- What is your perception of morale ***after*** GP was implemented?
- Can you recall any of the comments/opinions amongst your colleagues over the course of GP being implemented?
- How would you describe the ***culture*** of your institution ***now***?
- Do you think there has been a culture change since GP was implemented? If so, how?
- How have jobs/work/duties changed as a result of GP?
- In your opinion, how important is it that faculty support the GP program? Why?
- How would you describe the level of support for GP at your institution ***now***? Can you explain?

- Is there anything you'd like to add?

On a scale of 1-5,

- How involved were you in the development / implementation of GP?
- How much opportunity were you afforded to be involved in the development / implementation of GP?
- How well was the implementation process communicated to you along the way (planning, incorporation of new processes into existing ones, where the College was at, where it was going?)
- How much has GP implementation changed what you were doing before it was implemented?
- How much/often is your input in regards to GP impact on students sought each semester?

Short answers

- What modes of communication are used to communicate GP's progress? List as many as you can think of:
- Thinking of the implementation of GP at __ CC, what word or couple of words come to mind when I say the following words.
- Communication
- Value
- Transparency
- Change
- Time/workload
- Respect (for your professionalism)
- Participation
- Evidence
- Collaboration
- Understanding
- How do you measure success at __CC?

Appendix B: IRB Approval

FERRIS STATE UNIVERSITY

Institutional Review Board for Human Subjects in Research

Office of Research & Sponsored Programs, 1010 Campus Drive, FLITE 410D · Big Rapids, MI 49307

Date: December 21, 2017

To: Sandra Balkema and Nancy Dammer Moore
From: Maureen Wawsczyk, Research Integrity & Compliance Officer
Re: IRB Application, *Identifying the Barriers Causing Resistance to Pathways Among Faculty*

The Ferris State University Institutional Review Board (IRB) has reviewed your application for using human subjects in the study, *Identifying the Barriers Causing Resistance to Pathways Among Faculty*, and determined that it does not meet the Federal Definition of research on human subjects, as defined by the Department of Health and Human Services or the Food and Drug Administration. This project does not meet the federal definition of research on human subjects because it is a program evaluation designed to measure the value of the program to its participants. As such, approval by the Ferris IRB is not required for the proposed project.

This determination applies only to the activities described in the submission; it does not apply should changes be made. If changes are made and there are questions about whether these activities are research involving human subjects, submit a new request to the IRB for determination. This letter only applies to Ferris IRB Review; it is your responsibility to ensure all necessary institutional permissions are obtained and policies are met prior to beginning the project, such as documentation of institutional or department support. Note that quality improvement project findings may be published, but any findings presented or published should be clearly identified as part of a quality improvement initiative and not as research.

Your project will remain on file with the Ferris IRB for purposes of tracking research efforts at Ferris. Should you have any questions regarding the determination of this letter, please contact the IRB.

Regards,

Maureen J. Wawsczyk

Ferris State University Institutional Review Board
Office of Research and Sponsored Programs

Version 12.2014