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Publication Date

2024

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UNIVERSITY OF CALIFORNIA

Los Angeles

Redesigning Success Centers for Students of Color: A Case Study on Initiating and Sustaining Change

A dissertation submitted in partial satisfaction of the

requirements for the degree Doctor of Education

by

Julius Simon Duthoy

2024

ABSTRACT OF THE DISSERTATION

Redesigning Success Centers for Students of Color: A Case Study on Initiating and Sustaining Change

by

Julius Simon Duthoy

Doctor of Education

University of California, Los Angeles, 2023

Professor Cecilia Rios-Aguilar, Chair

California community college data shows that most community college students will never earn a degree (The Community College Research Center, 2018) or take a long time to do so (Horn & Skomsvold, 2002; Jenkins et al., 2017). Low success holds significant impact for students of color since California community colleges serve 72% of all Latine undergraduates (The Campaign for College Opportunity, 2021b) and 64% of all Black undergraduates (The Campaign for College Opportunity, 2021a). The Guided Pathways framework comes as another response in a chain of completion initiatives. However, most research in Guided Pathways has been done from a bird's eye view and Guided Pathways has been criticized for its lack of intentionality for students of color (Rose et al., 2019). This case study provides the story of one institution's attempt to engage Latine and Black students using Guided Pathways as an opportunity to redesign learning assistance centers into Success Centers- physical spaces for an

institution's meta majors. Although the study hoped to learn how Success Centers engage with Black and Latine students from the perspective of Success Center faculty and staff, the goal was not to provide a list for institutions to adopt. The case provides a lesson on how an institution with an abundance of ideas and talent struggled to create and sustain change in one area of campus. The Success Centers attempted a formal initiative to engage Black and Latine students, but it faded over time. Currently the centers utilize a mix of informal practices to build community, promote diverse tutor representation, alter their physical spaces, and outreach to other centers and students. Ultimately, due to challenges such as stakeholder involvement, unclear roles, leadership and a lack of community, participants did not feel the redesign has impacted engagement with Black and Latine students but are hopeful it may still succeed to do so. Such findings reflect a need for the adoption of methods of improvement science tethered to an equity framework, a combination of vertical and shared leadership, as well as discussing change in small, informal settings.

The dissertation of Julius Simon Duthoy is approved.

Brock Klein

Lynn S Kim

Daniel Gilbert Solorzano

Cecilia Rios-Aguilar, Committee Chair

University of California, Los Angeles

2024

DEDICATION

To Kristen, I don't have the words. I don't think they exist.

To my parents, Kevin and Maria del Carmen; my children, Madeline, Gideon, Remy, and Frances.

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CURRICULUM VITAE

Experience

2019 – Present

Math-Success Center Faculty,

Pasadena City College

2017 – 2019

Math study center coordinator,

El Camino College

2018 – 2019

Math instructor,

Long Beach City College

2017 – 2018

Math instructor,

Santa Ana College

2016-2017

Project manager,

Reagent World

2014 – 2016

Academic Coach,

College Internship Program

2010 – 2014

Mathematics Instructor (Dept. Head),

Fusion Academy Los Angel

Education

2024 (Expected June 2024)

Doctoral degree, University of California, Los Angeles

2008

Bachelor's degree, Santa Clara University

B.S. Mathematics emphasis in Applied Mathematics

2016

Master's Degree, California State University

MS in applied mathematics

2004

High school diploma, Don Bosco Technical Institute

Computer Science Major

OTHER TRAINING, ACCOLADES, AND INVOLVEMENT   Jamie Escalante Math Program

College Internship Program- Autism Toolkit

Club Advising

Former ECC Math Club Faculty Co-Advisor

PCC Math Success Club Faculty Co-Advisor

PCC Pi Club Co-Advisor

Presentations

Starfish Annual User Group Summit 2019

ACTLA 47th Annual Conference 2022

UCLA Roundtable Expert/Facilitator

Community College Symposium 2024

Special Trainings & Symposiums

LGBTQ+ Ally

Undocumented Training

Curriculum Development

Fusion Epicenter Common Core Curriculum Symposium

Title V- Abriendos Caminos Curriculum Development

Title III Curriculum Redesign Project

Committees & Governance

Student Success Committee

MESA Faculty Council

CAP^2 Program Coordinator/Instructor

CAS Team Member - SI Lead

CHAPTER 1: INTRODUCTION

This case study examines how learning assistance centers (LACs) at one community college (CC) in California engage with Black and Latine students within the context of the Guided Pathways (GP) framework. According to Arendale (2007), an LAC (also known as a tutoring center, learning center, learning support center, learning success center, among other names) is a physical and/or virtual environment that reinforces and extends academic learning by offering a variety of academic services designed to enhance student completion. More recent literature suggests that LACs view their role as much broader than completion (Arendale, 2004; Truschel & Reedy, 2009). For example, they may serve as a key component of a welcoming student climate at an institution (Soltani et al., 2017). Research indicates the significance of an environment of inclusion for students of color (Maestas et al., 2007; Pichon, 2016; Strayhorn, 2008). Thus, LACs play an important part in closing equity gaps in higher education. The mission of LACs to enhance completion and their potential to create a sense of community aligns well with the implementation of GP by the California Community College Chancellor's Office. The GP framework seeks to simplify the pathway from application to completion with key supports along the way. This study examines the perspectives and experiences of LAC staff and faculty at a CC in California regarding engagement with Latine and Black students during a redesign effort inspired by GP. The findings detail the successes and failures, showing how LACs can support traditionally underserved students. The piece applies more broadly to institutions attempting to implement and sustain change.

Personal Motivation

I wanted to conduct a quantitative study to determine how LACs were implementing GP and whether their practices were effective. I felt that nobody was discussing GP within the LAC community, and I wanted the LACs to stop taking a back seat in initiatives. Perhaps not widely known to outsiders, LACs have organizations with national conferences such as the College Reading & Learning Association, the Association of Colleges for Tutoring & Learning, and the Council of Learning Assistance and Developmental Education Associations. Despite attending many of these conferences annually, I had never seen a session dedicated to GP. It seemed that LACs were not going to be assertive in how they should be included in the framework.

The purpose of my study changed, however. First, the timing was off. It would have been difficult to conduct a study on GP effectiveness when no institution had fully implemented GP. Moreover, everyone was returning from the COVID-19 pandemic which stalled some GP efforts. Second, I realized that a list of best practices from LACs would offer the wrong message to educators reading the dissertation. Although many practitioners are in search of a magical list of solutions, solutions exist across the literature but continually fail. Concentrating on a story of how a college attempted to make reforms could teach broader lessons in change management. Last, I realized that GP risked ignoring the unique intersectionality of our students and I did not want to make the same mistake by approaching my work from a colorblind lens.

I realize now that I have had difficulty discussing issues of race and equity due to my own intersectional identity. My father is White and my first and last name appear white. Yet, my mother was born in the state of Zacatecas in a small town called Tepetongo. I grew up in a Latine neighborhood and have fond memories of my grandma, Manuela Salazar, always having a pot of

beans on the stove. But I have never felt fully Mexican or White. I felt too weird to join Latine groups at my college. I don't speak Spanish very well and was sometimes lovingly called a coconut – brown on the outside but white on the inside. Professionally, it was inspiring but also intimidating to see passionate Latine faculty speak so well on issues of race and equity. It was not my place to speak I thought. I was not brown enough. I have come to terms with who I am now and realize how important it is for me to offer myself to support the success of marginalized students. Their lives mean a great deal to me. I offer myself as an educator, mathematician, researcher, and brother to use my power to advocate for their success.

Statement of the Problem

CCs are faced with low completion rates, large equity gaps for Latine and Black students, and a poor track record of implementing sustained reform. Fewer than half of the degree, certificate, or transfer-seeking students complete their goal within 6 years (*2019 Student Success Scorecard*, 2019). Only about one third of the Black and Latine students that enroll seeking transfer will do so in 6 years (The Campaign for College Opportunity, 2021b, 2021a). Despite a plethora of reforms to combat low completion and large equity gaps, practitioners have a history of implementing solutions with little results (Bryk & Yeager, 2013). Furthermore, research on implementing GP has not examined examples of how reform occurs at a micro-level. This dissertation examines how one CC attempted to use LACs to engage with Latine and Black students as part of their larger GP efforts.

Background

Low Completion Rates and Large Equity Gaps

California CCs suffer from low rates of completion (transfer, associate degrees, certificates) and long completion times, resulting in a high cost to students and the economy. Average completion time is around 6 years, and only around a quarter of all 17- to 20-year-old students transfer or obtain a degree (Kirst, 2008). Given that 57% of all first-year students attend CCs, low completion holds dire consequences for all of society (Deil-Amen, 2015.). Individuals who obtain no certificate or degree beyond high school face substantially lower earnings (C. R. Belfield & Bailey, 2011). With CCs serving over 60% of Black and Latine undergraduates and 44% of all low-income students, completion rates at CCs perpetuate current socioeconomic inequality (National Center for Public Policy and Education, 2011). As students struggle to complete degrees, employers struggle to find skilled workers, and the competitiveness of the United States is threatened. A dreary economic picture will perpetuate an already stagnant tax base that attempts to fund quality education (T. R. Bailey & Smith Jaggars, 2015). If completion rates do not change, the United States faces economic decline and exacerbated inequality.

Reform and Learning Assistance Centers

To combat low completion, California has developed an appetite for reform. The state senate implemented the Student-Centered Funding Formula, which ties part of a CC's funding to the number of associate degrees, transfers, certificates, completion of units, and completion of transfer-level English and math (Harvey, 2020). The legislature passed AB 705, making it difficult for CCs to over-place students into remedial math and English courses, which served as roadblocks to success, especially for students of color (California Community College Chancellor's Office,

2023). The COVID-19 pandemic allowed Student Equity and Achievement Program funds and CARES Act money to be used to offer cash directly to students for textbooks, internet access, and rent (Lezon, 2019). The mid-2000s saw a series of large-scale initiatives under a "completion agenda" (Miller & Harrington, 2023). Despite the wide-scale efforts, as of May 2021, only 28% of full-time, degree-seeking, first-time students at postsecondary public schools graduated within six years (National Center for Education Statistics, 2021).

GP is the most recent completion initiative. It asks colleges to organize and redesign their academic pathways with four pillars in mind: Students must be supported in choosing their path, entering their path, staying on their path, and ensure learning (*Guided Pathways Legislative Report*, 2018). All 116 California CCs have adopted the initiative after the California governor carved out $150 million for its adoption in 2017 (Bailey-Hofmann, 2019).

Existing Research

The three components of the study, namely (a) serving Latine and Black students, (b) LACs, and (c) reform, have all been the subject of previous research. Studies have shown that students of color find greater success when surrounded by staff, faculty, and other students of color (Kosses, 2019; Pulliam et al., 2019). Numerous studies have shown that services at LACs are effective in student success, retention, and non-quantitative variables such as belonging and sense of worth (Colver & Fry, 2016; Curry, 2016; Grillo & Leist, 2013; Hendriksen et al., 2005; Leung, 2019; Watson & Chen, 2019). In the context of reform such as GP, implementation and sustenance comes with contextual challenges, awareness and motivation challenges, and change management challenges (Miller and Harrington, 2023). Improvement science serves as a key methodology to overcome such issues (Bryk & Yeager, 2013; Hinnant-Crawford, 2020).

Existing research concentrates on practices to better serve Black and Latine students. Studies that focus on change management processes, such as improvement science, often highlight how best practices overcome common challenges and/or provide case studies where improvement science has been successfully implemented. This study offers a rare glimpse into the reality of work for practitioners on the ground attempting to operationalize equity for Latine and Black students during GP reform.

Statement of Purpose

The study's objective is to explore the experiences of Meta Major College (MMC) faculty and staff working in the LACs to engage with students of color in the context of a redesign effort. As part of GP, MMC has reorganized its LACs into Success Centers. MMC has devoted a Success Center for each of its six meta-majors: (a) STEM (science, technology, engineering, and mathematics); (b) Business & Industry; (c) Health Sciences & Wellness; (d) Liberal Arts; (e) Social & Behavioral Sciences; and (f) Arts, Communication & Design (Meta Major College, n.d.). The dissertation will not provide a list for institutions to take and implement. Many researchers state that educators already have a lot of great ideas but lack the experience to implement their ideas (Bryk & Yeager, 2013). This case study will give a tale of *how* engagement with Black and Latine students has taken place.

Research Questions

This study is guided by the following questions:

1. In what ways do MMC Success Centers engage with students of color?
2. How has the Success Center redesign affected, if at all, the use of the centers by students of color?

Overview of Research Design

A qualitative approach using a case study design serves as the methodology for this work. Both research questions seek to know "how". According to Yin (2018), when researchers seek to know "how" something has worked, a case study design should be used. A case study design allows for an in-depth exploration directly from the practitioners employed in the Success Centers. Interviews were conducted with practitioners from six Success Centers and, to provide context, two administrators involved in the creation or direction of the Success Centers. Artifacts, such as reports, flyers, meeting agendas, videos, and webpages related to how Success Centers engage with students of color or the design of the centers were also used to provide context, inform interviews, or supplement findings from interviews.

Study Significance

The study will be beneficial for LAC professionals and CC leaders undergoing or seeking to undergo change. Such work is timely since all 116 CCs have begun incorporating the GP reforms. Additionally, nearly every CC in the greater Los Angeles area has expressed equity in its mission or values (see Appendix B). CCs attempting to include equity in their reforms can learn from the example presented in this case study.

No literature was found that offered an in-depth case study of the experiences of LAC professionals at a single institution. Moreover, much of the GP literature focuses on CC or GP leaders at a campus. The results of the present study will give a first look at not only what lessons may be learned when implementing GP with LACs, but what practical actions may be taken when leading change with any segment of a campus. Both broad and specific findings regarding LACs

and GP may provide momentum to tackle the problem of closing equity gaps and completion overall.

CHAPTER 2: LITERATURE REVIEW

This literature review answers six questions: (a) Why have there been calls to reform CCs? (b) Why do students struggle to complete? (c) Why does completion matter? (d) What is the role of LACs in student completion? (e) what is the Guided Pathways framework? And (f) What challenges have arisen for GP?

Why Have There Been Calls to Reform Community Colleges?

To set the context, I will first discuss the amount of insulation that higher education has enjoyed from public scrutiny. Then I examine the evidence illustrating the call to reform, including performance-based funding (PBF) models, public polling, and enrollment data.

Higher education's insulation from scrutiny has begun to dissolve. Mehta (2014) compares the k-12 and higher education accountability movements in terms of professionalization. The piece argues that, unlike the k-12 sector, the professionalization of college faculty has caused accountability to defer to the expertise of the institutions themselves. For example, the landmark paper, "A Nation at Risk" (The National Commission on Excellence in Education, 1983), was highly prescriptive and dramatic in its criticism of the k-12 sector. The paper claimed that the mediocrity in US schooling threatened the nation's future. In contrast, the report "Involvement in Learning" (1984), asked institutions to continue to live up to their own high standards. The language changed, however, in the more recent Spellings Commission (The Secretary of Education's Commission on the Future of Higher Education, 2006). The commission called for a more powerful state and/or federal accountability system and questioned the expertise of faculty. As evidence of the convergence in accountability between k-12 and higher education, Ewell and

Jones (2006) point out that higher education reformers have been borrowing tools from the k-12 sector to assess institutional outcomes. One such example can be seen in PBF models in CCs.

State legislators have increasingly adopted PBF models that tie at least part of an institution's funding to metrics such as degree or certificate completion. As of 2015, 37 states had adopted PBF policies (Kelchen, 2018). In 2018 the California Community College Chancellor's Office adopted the Student-Centered Funding Formula, which divides funding into three components: (a) a base allocation predicated upon enrollment, (b) a supplemental allocation based upon the number of students that qualify for a Promise or Pell Grant; and (c) a student success allocation. The student success allocation is based on the number of students earning degrees and certificates, transferring, completing college-level English or math, or completing nine or more career education units (Harvey, 2020). It remains to be seen whether such efforts will bring back trust to the CC sector or higher education. Most research has shown slim gains in student success with PBF implementation up to 2015 (Kelchen, 2018). Additionally, PBF may result in institutions catering to students who are more likely to complete unless incentives exist to support students seen as less likely to complete—namely, students from underserved groups (Kelchen, 2018).

The public has also called into question the value of higher education. Since 2017 public opinion polls have shown that Americans believe that higher education is going in the wrong direction, not preparing graduates for meaningful work, and presenting a liberal view of the world (Lederman, 2022). A Winston poll in 2022 found that 36% of Americans felt the value of a college degree had increased over the past 20 years, and 38% felt the value had decreased. These numbers represent an increase from polls in 2018 and 2017 (Lederman, 2022). A similar trend can be seen in whether Americans feel higher education is on the right track. In 2022, 38% of Americans felt that higher education was on the right track, 19% felt it was on the wrong track, and 44% said they

did not know. Again, these percentages show an uptick from 2017 when 27% of Americans felt that higher education was on the wrong track (Lederman, 2022). Dropping enrollment provides evidence of these beliefs. California CC enrollment has declined over the past few years, taking a slide from 2019 through 2021 as seen in Figure 1.

Figure 1: Enrollment Decline
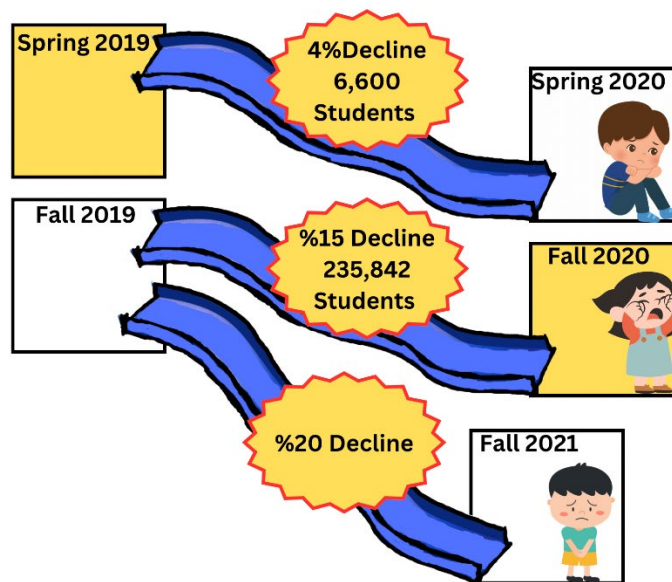
Note. Information taken from Bulman & Fairlie, 2021; Hetts, 2022

Although there were slight increases in enrollment for the University of California and California State University system in fall 2020, half of all California 4-year college students begin at California CCs. Declining enrollment at CCs affects the entire California higher education system (Bulman & Fairlie, 2021). Although the sharp declines in enrollment came during the

height of the pandemic, numbers for fall of 2022 continued to decline, dropping by just over 9% (*Cal-PASS Plus - Student-Success-Metrics*, 2022).

Even before COVID-19, some scholars speculated whether higher education was on the cusp of a major disruption (Christensen & Eyring, 2011). The public has access to a large amount of high-quality free content. Along with this access are new ways to assess and certify learning that do not rely on the traditional model of credit hours in a classroom. Instead, students would be tested on what they know without necessarily taking a class. The core activities of a college (creating and offering courses) may move to the periphery, while the provision of academic support and peer groups may move from the periphery to the core (Doyle & Kirst, 2015). Nevertheless, for now, all attention has turned toward completion and costs.

The discussion above has shown that the value of higher education and CCs has been called into question. As a result, the public and legislators have begun to push institutions to reform. Next, I examine five reasons why there have been such calls to reform: first, the goal of CCs has changed from one of access to performance; second, completion rates are low; third, when students do complete, it takes too long; fourth, CCs cost more than most people think; and fifth, CCs have a disproportional impact on underserved student populations.

From Access to Performance

CCs grew from a demand for access to higher education. Figure 2 below shows a timeline of key historical events that help explain the increasing demand for access to higher education.

Figure 2: Timeline of Increasing Access Higher Education

Morrill Acts of 1862 and 1980 provided the first lower-cost alternatives to elite private colleges (Cohen et al., 2014)	Population increases in the early 1900s meant more students graduating high school. For example, in 1924 highschool graduation was at 30% and by 1960 it was 60%.	In the mid 1800's Prominent educators (Tappan, Mitchell, Folwell, James, Jordan) began to propose junior colleges to take care of the lower division classes so universities could be true research and professional development centers.
Post WWII Government Appropriations: *1944 GI Bill* supported around 1 million veterans to enroll in higher education by the fall of 1946 (Arendale, 2004).	**Civil Rights Legislation** *1954 Brown v. Board of Education* ends legal segregation *1964 Civil Rights Act* and LBJ's *Great Society* attempts to support students of color and the poor to access higher education. *1964 Economic Opportunity Act* and the *Higher Education Act* of 1965 supported traditionally excluded groups to seek higher education	**1970's Increased Enrollment:** High School to College Enrollment rate increases to 45%. Large increase in adult and part-time students (NCES, 1993).

The timeline explains why more bodies and new types of students were enrolling into higher education. Except for the reference to prominent educators proposing junior colleges (note that "junior college" was a common early name for CCs, which I use interchangeably) to meet the demand, the timeline does not explain why CCs were the answer. Universities could have expanded to meet the growing need, and why did Europe not create a similar structure to meet their increasing populations? Cohen (2014) argues that there is no one reason CCs expanded. It may be a combination of industry's demand for trained workers, community leaders seeking prestige for their town, or even a plot to redirect the poor to lower-paid work.

Many authors have discussed the role of local leaders in the creation of CCs (Dougherty, 1994; Frye, 1992; Pederson, 1987, 1988, 2000). Often, the new colleges began operating from the local high school. Much civic pride surrounded a local college. Superintendents may have enjoyed

becoming college presidents, and schoolteachers were now college professors. The debate around junior colleges in the 1920s and 1930s was often whether the institutions were a continuation of secondary school or truncated colleges (Cohen et al., 2014). History has shown that adding two more years to secondary schools did not catch on, despite having some support (the Bill & Melinda Gates Foundation recently funded the Early College High Schools initiative to do just that; Berger et al., 2010). Nevertheless, the separate junior college took over the 2-year higher education model.

Many proponents argued for the creation of junior colleges. Some, such as William Folwell, the president of the University of Minnesota espoused the idea that junior colleges allowed extra time for students to transition from adolescence to adulthood (Koos, 1924). For others, the institutions provided an extra 2 years of schooling to complete formal education. For example, Harvard president James Bryant Conant stated that, for most students, education should end at high school, but an "occasional transfer of a student from a 2-year college to a university should not be barred" (Bogue, 1950).

Whatever the precise reason, junior colleges expanded quickly. Koos (1924) reports that, by 1909, 20 junior colleges existed, and 10 years later there were around 170. In 1930 there were 440 junior colleges in all but five states (Cohen et al., 2014). In 2017 the US Department of Education reported 1,047 CCs (2017). California had around 33% of CC students in 1930 and has never relinquished its lead for CC enrollments. From the beginning, the West (including California, Arizona, Wyoming) proved to have the most favorable climate for 2-year colleges. Suggestions for why the West embraced the institutions include that it adopted new ideals of democracy, such as women's suffrage. More notably, the West had not been widely populated. Little competition existed from the private sector, and higher education institutions were less steeped in tradition.

CCs helped to demystify the once mysterious nature of higher education. Until the middle of the 20th century, only one in seven went to college, and the student population was primarily middle to upper class. With the expanding population, CCs answered the call to access by opening their doors to new populations of minorities, women, and underserved high school students. CCs shifted the purpose of higher education to that of socioeconomic mobility. In recent years, as detailed earlier, the public and legislative leaders have called for more accountability of public investment in colleges. The result has been a concentration on outputs—primarily completion of transfer, certificates, or degrees (Cohen et al., 2014). The mantra "we serve anyone, anywhere, for as long as they like" may be exchanged for "we serve anyone, anywhere, depending on funding and financial aid."

Low Completion Rates

The low completion rates of CCs have caused mounting political pressure for action (T. R. Bailey & Smith Jaggars, 2015). California CC data show that most CC students never earn a degree. The Community College Research Center (CCRC; 2018) reported that 80% of new CC students hoped to earn a bachelor's degree. Yet, of the 1,262,484 students enrolled in the California CC system in the fall of 2017–2018 whose goal was to earn a 2-year or 4-year degree, only 66,419 earned an associate of arts or associate of science degree, 39,889 earned a degree for transfer, and 113 earned a CC bachelor's degree. Overall, approximately 8.4% of degree-seeking students earned a degree (*Community College FAQs*, 2018). To increase the urgency of responding to these low rates, I note that the California CC system alone serves around 2.4 million students and provides half of the students at California 4-year colleges (Bulman & Fairlie, 2021; Deil-Amen, 2015; *Key Facts | California Community Colleges Chancellor's Office*, n.d.). A low completion

rate applied to the largest college system in the United States equates to a vast number of students who did not reach their goals.

Long Completion Times

CC students who eventually do earn degrees take a long time to do so. Only 33% of the 80% of new CC students who hope to earn a bachelor's degree transfer within 6 years (Horn & Skomsvold, 2002; Jenkins et al., 2017). Of those who transfer, 42% complete a bachelor's degree within 6 years. Therefore, 14% of the entire cohort of new CC students earn a bachelor's degree within 6 years (Jenkins et al., 2017). At California public schools, it takes around 6.4 years to transfer and earn a bachelor's degree from a UC and around 7 years to transfer and earn a bachelor's degree from a CSU. However, only 4% of students transfer after 2 years, 25% after 4 years, and 38% after 6 years (Bustillos, 2017).

Higher Than Expected Costs

As well as taking a long time for students to graduate or students altogether failing to earn degrees, California CCs cost more than most people think. Costs for school include more than tuition. Students need textbooks, transportation, food, and housing. The Institute for College Access and Success found that, in many regions of California, CCs have a higher net price than their nearest UC or Cal State (What College Costs for Low-Income Californians, 2017). In the same report, UCs, CSUs, and CCs were compared in nine regions across California using the institutions' own estimates of what a low-income student would have to pay after subtracting for available grant aid. CCs had the most expensive net cost in the seven regions and were not the least expensive in any region. A key factor is that UC students receive more than 300% more grant aid. Costs to attend a UC are 59% higher than those for CCs, but the grant aid more than makes

up for the difference. Furthermore, CC students work the greatest number of hours weekly to cover the net costs of school. The main reason that low-income students leave school or take longer is the necessity to work and attend classes at the same time (What College Costs for Low-Income Californians, 2017). Due to the extended time to earn degree, transfer students pay an additional $36,000 to $38,000 (Tomas Bustillos, 2017).

Impact on Underserved Student Populations

The students most affected by low completion and long academic paths are students of color, first-generation students, students from low-income backgrounds, current or former foster youth, disabled students, veterans, and those labeled "underprepared" for college (Tomas Bustillos, 2017). The California CC system is the most important system of higher education for Latine students. Nationwide, Latine students account for 26% of all college enrollments but 56% of the enrollments at CCs ("Trends in Community Colleges: Enrollment, Prices, Student Debt, and Completion," 2016). Of the 1.26 million Latine undergraduates in the 2018–2019 academic year in California, 72% enrolled at a CC (The Campaign for College Opportunity, 2021b). Only about one third of the Latine students enrolled will be supported to transfer after 6 years. Of the Latine students who do earn a degree and gain employment, 57.1% begin at a CC (National Center for Science and Engineering Statistics, 2019). With Latine adults having the lowest rates of degree attainment in California of any racial/ethnic group (14%), success at CCs is key in providing socioeconomic equity. The low completion rates may dissuade many Latine students from earning a degree, and long completion times may eliminate any student savings made by attending a CC instead of a 4-year (The Campaign for College Opportunity, 2021b).

Similarly, Black students rely on CCs to access higher education. Black students enroll in California CCs more than any other form of higher education in the state, accounting for 64% of all Black undergraduates (The Campaign for College Opportunity, 2021). Only one third of these students earn a degree/certificate or transfer within 6 years, however. Of those who transferred in the fall of 2018, 38% transferred to a for-profit university with higher costs, higher debt, higher loan default rates, and low completion rates (The Campaign for College Opportunity, 2021). Since California is home to over 2.1 million Black people (behind only four other states for the share of Black Americans), low success at CCs translates to stagnation in socioeconomic equity. According to the National Center for Science and Engineering Statistics (2019), 54.7% of employed Black college graduates attended CC. A correlation between education and employment should be examined, since 5.5% of Black Californians account for 40% of the homeless. Increasing CC success for Black students would have a significant positive effect on the Black community, as is true for other traditionally marginalized groups.

First-generation students are those who are the first in their family to attend college (The Campaign for College Opportunity, 2018b). Research indicates that first-generation students are more likely to attend CCs than non-first-generation students but less likely to transfer or earn a degree (Kosses, 2019). The CCCO Scorecard (2019) showed that over 40% of CC students are first generation. Within the first year of enrollment, first-generation students have a completion rate in math or English of just 7%.

Current and former foster youth possess a strong desire to attend college but are more likely to dropout without transferring or earning a degree than non-foster youth (Lopez & Duran, 2016). At 17 years old, 89% of foster youth express a desire to go to college, but at age 26, only 8% of former foster youth held an associate or bachelor's degree (California College Pathways, 2018).

For the 2015–2016 cohort of former foster youth entering CCs before the passing of AB 705, 87% were placed in remedial math (compared to 74% of non-foster youth) and 75% were placed in remedial English (compared to 62% of non-foster youth; Educational Reports Partnership, 2017). In their first term, only 46% of foster youth attempt to take six or more credits, and only 11% attempt 12 or more credits.

Underserved populations have experienced the greatest drops in enrollment over the past 2 years. Both Black and Latine students saw a 17% drop in the fall of 2020, compared to 15% for the CC population. The largest overall decline came from first-year CC students, basic skills, and specific fields such as engineering/industrial technology, education, and art (Bulman & Fairlie, 2021). A decline in enrollment in these categories means fewer underserved students participating in these categories—fewer underserved students in STEM, education, and art and fewer starting their first year at a CC. Judging by the data on underserved groups presented above, any substantial initiatives at the CC must be purposeful in helping underserved students to be served equitably.

Why Do Students Struggle to Complete?

There may be many reasons college students struggle to complete their programs. This section puts forth theories or initiatives that address completion. The section is divided into two parts: (a) student-level views, which refer to viewpoints that faculty, staff, and administrators may take when working directly with students; and (b) structural-level views, which refer to institution-wide policies, activities, and organization. Some overlap exists between the categories, and the approach is meant to organize ideas. As this is a case study of implementing institutional change in LACs via the GP framework, in the second part I illustrate how recent initiatives led to the development of GP.

Student-Level Viewpoints

I briefly consider a few popular explanations why students struggle based on actions that faculty, staff, and administrators take. In the top yellow portion of Figure 3 below, I present an explanation of why students may struggle to complete and in the bottom part a theory/framework that seeks to address that explanation.

Figure 3: Moving Away from a Deficit, Colorblind View of Education

One reason students fail is because at best they are treated as if they have the same background. The same skin color, racial identity, gender identity, cultural identity, physical/cognitive strengths, and socioeconomic status. At worst, students backgrounds are seen from a deficit perspective.

Former Dominant Thought

Defecit-Based Mindset
Instructors openly or implicitly view students with some backgrounds as less capable than others. For example, the suppression of Native American culture at the Indian Schools of the 1860s.

Equality/Colorblind
Students were treated as equal regardless of their background. Teachers did not "see" color. However, students did not come from equal backgrounds. Students that faced more barriers were not given additional (unequal) support to help overcome them.

Banking Model of Education
Students' purpose goes as far as receiving, filing, and storing information. Much like depositing money into an empty bank (Freire, 2000). Much like the tabla rasa of Locke (Locke & Woolhouse, 1997).

Traditional Grading & Assessment
Common grading practices perpetuate historical inequities, are biased against underserved students, and do not reflect what a student knows at the end of a course (Feldman, 2019)

Affirmation of a Student's Worth and Background

Equity
Students are given support based upon their needs. Stresses equal outcomes rather than equal inputs (Jurado de los Santos et al., 2020).

Critical Theories
Referring to theory that hopes to emancipate those oppressed. It may include feminist theory, critical race theory, and post-colonial criticism (Bohman, 2005)

Critical Race Theory (CRT)
A way of looking at a systems role platforming, facilitating, producing,, and even insulating racial inequality (Crenshaw, 2021)

Micro-Affirmation (Micro-Aggressions)
Micro-Aggressions Include verbal, nonverbal, layered, and/or cumulative assualts directed towards People of Color, sometimes done unconsciously (Solorzano, 2020). Micro-Affirmations include subtle verbal or non-verbal strategies that POC do to affirm each other (Solorzano & Perez, 2020).

Community Cultural Wealth
Students from communities of color come to school with cultural capital (linguistic, navigational, familial, social, resistant, and aspirational) that has previously been dismissed (Yosso, 2005).

Culturally Relevant/Sustaining Pedagogy
An educational model which not only accepts but affirms students' cultural identity and challenges inequities that schools perpetuate (Ladson-Billings, 1995). More recently, scholars such as Paris (Paris, 2012) have offered the term culturally sustaining pedagogy to emphasize the fostering of linguistic, literate, and cultural pluralism.

Liberatory Outcomes/Consciousness
Education is a mutual process that can serve as an instrument of liberation (Freire, 2000). Education can bring about a liberatory consciousness that allows students to live in an oppressive system with intentionality and awareness (Adams, 2000).
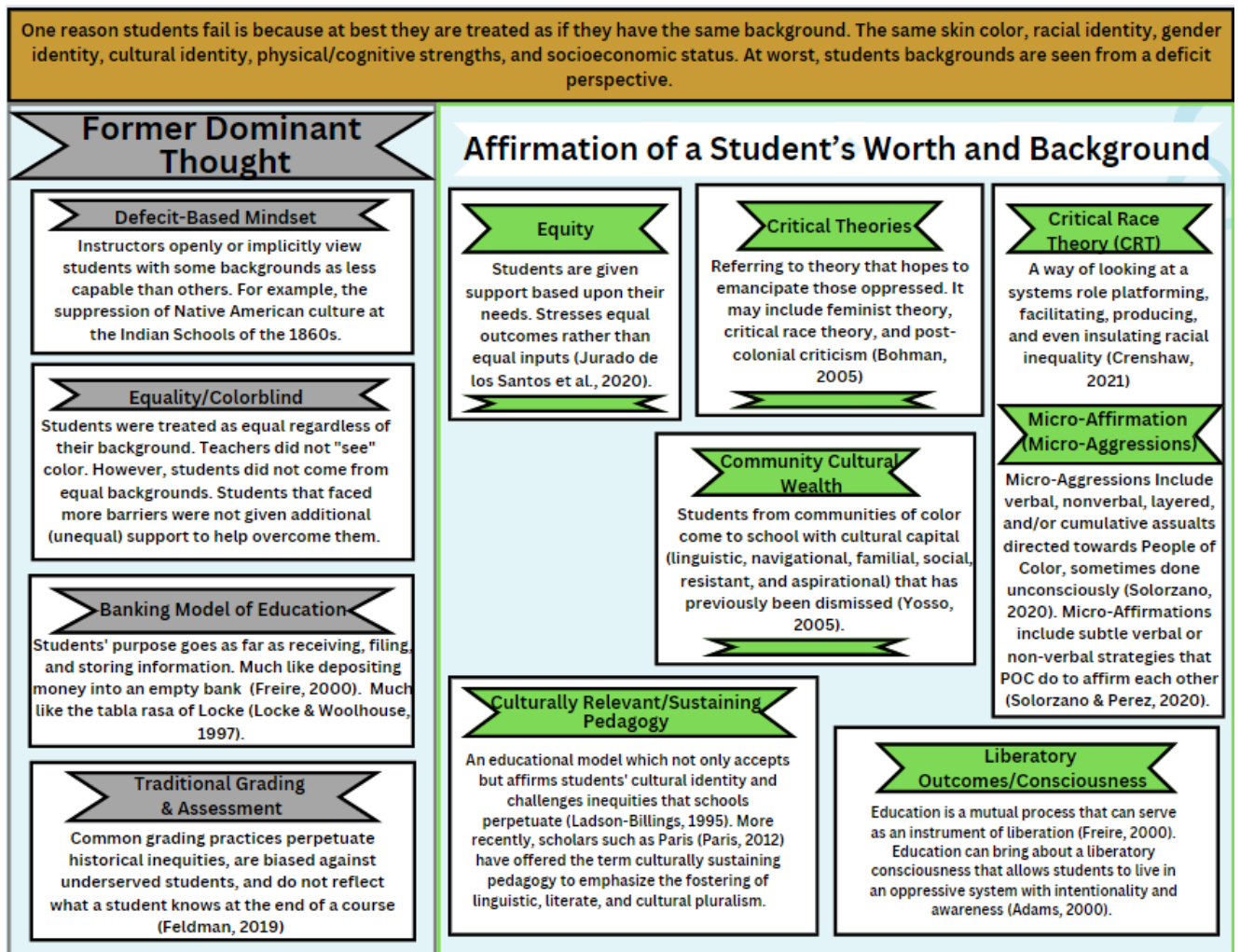
20

Figure 3 proposes the explanation that students fail because they are treated as if they are a monolith or from a deficit mindset. The section on the left contains predominant thoughts that align with the belief that all students are either the same or that some backgrounds present a deficit – usually underserved groups such as Black and Latine students. On the right are new ideas in education that affirm each student's unique history. Neither section is complete. For example, Crenshaw's idea of intersectionality (Crenshaw, 1989), which takes into account the multiple parts of an individual's background (e.g., race and gender), naturally complements the right section. With the pandemic, a push toward a trauma-informed equity-minded asset-based model (TEAM) has gained momentum and could also be included in the section to the right. Ramasubramanian et al. (2021) give the "Six R's" to implement the TEAM framework: (1) Realizing dominant ideologies embed our education system; (2) Recognizing the effects of systemic trauma on marginalized communities; (3) Responding by creating safety and trust and giving communities a voice in learning environments; And (4) resisting retraumatization in education. Figure 3 provides a snapshot of some of the recent shifts in education while this dissertation was being written.

Structural-Level Explanations

Many structural explanations exist for why students struggle to complete. As this dissertation is concerned with the implementation of GP, I narrow the discussion to the structural explanations that have led to the GP framework. Figure 4 shows some of the initiatives that have led to GP along with a description of each.

INSTITUTIONAL INTERVENTIONS
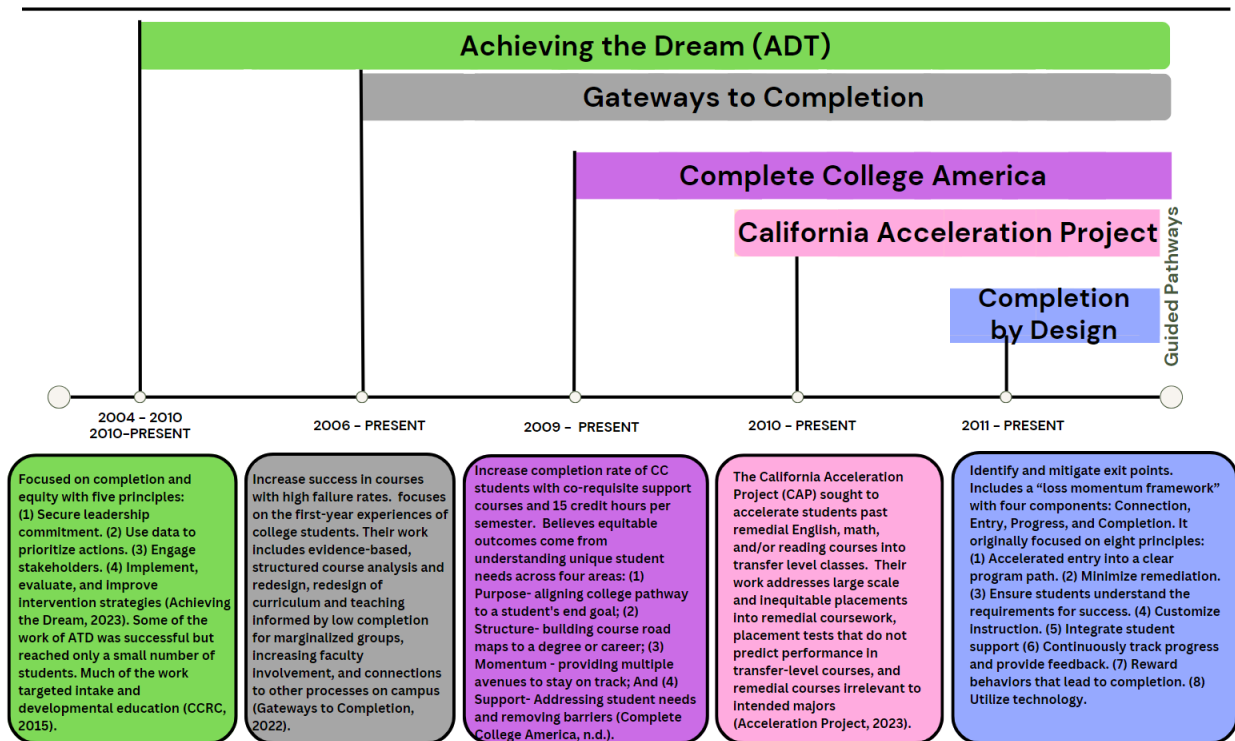
Miller and Harrington (2023) assert that CCs began a new line of reforms at the beginning of this century dubbed the completion agenda. The completion agenda aimed at improving the low completion rates at CCs with institutional reform. In an unpublished document produced by the CCRC (2015), Achieving the Dream is touted as the first major initiative in the completion agenda. Achieving the Dream has several lessons for institutional transformation. First, it established methods of continuous improvement or improvement science as the methodology for change. Second, a partnership with the Bill & Melinda Gates Foundation that focused on pilot-to-scale strategies proved to be ineffective at creating wide-scale implementation. Most implementations were isolated to specific segments of an institution and were not influential campus wide (CCRC, 2015). These lessons, with new insights, shaped the next three reforms listed.

Gateways to Completion, Complete College America, and the California Acceleration Project took aim at CC remedial/developmental education. New research supported pushback against the current remedial education model. Research showed that students who passed gateway courses in a program of study in their first year were more likely to graduate than those who did not (Attewell et al., 2011). Assessments in remedial education did not provide accurate accounts of what students needed, and remedial coursework did not result in higher success rates for underserved students. On the other hand, accelerated pathways and courses contextualized for pathways of study did show promise (T. Bailey, 2009; Jenkins et al., 2010). Thus, much of the work of Gateways to Completion, Complete College America, and the California Acceleration Project is to minimize developmental coursework and to achieve success in gateway courses. In California, such efforts led to the passage of AB 705 in 2017, which required CCs to maximize the probability that students pass transfer-level math and English within their first year (Rutan, 2018).

The CCRC attributes the Completion by Design (CBD) model as the final piece to set the stage for the GP framework. CBD took the lessons from the previous initiatives along with research in behavioral economics suggesting that CC pathways needed to be simplified. Thus, CBD hoped to encompass not only acceleration into a pathway, but also support through the path. As a broad framework, the variation in implementation of the CBD model allowed researchers to study what components of CBD worked well. For example, a report assessing the 2013–2014 academic year for CBD schools indicated that the most successful schools built their reforms around school-wide programs of study (Jenkins & Ran, 2015). School-wide programs of study served as the most visible implementation of all GP schools. Moreover, CBD cleared the way for GP to emerge. Institutions that found success with CBD became leaders of GP. CBD had trained administrators,

staff, and faculty and provided them with experience in creating and maintaining change (CCRC, 2015). Lastly, GP markets itself not as a new reform in a long line of reforms, but as a redesign around a framework that unifies past reforms around the four pillars of choosing a path, entering a path, staying on the path, and ensuring student learning (CCRC, 2015). As shown in Figure 4, all past reforms listed continue to operate under GP.

Why Does Completion Matter?

The previous section discussed a series of reforms as part of a completion agenda. Naturally, one might ask why low completion at CCs matters. Low completion rates are a critical issue not only for the earnings of individuals, but for society. First, higher education continues to be a gateway to financial stability. Hence, the likelihood of earning a degree directly affects equity in society. Second, low completion reduces the economic competitiveness of the United States.

Individual Earnings

Individuals without any type of certificate beyond a high school diploma face significantly lower potential earnings (C. Belfield & Bailey, 2017). Evidence shows that completing a credential or degree, from an associate degree up, improves employment outcomes and earnings (C. Belfield & Bailey, 2017; Holzer & Baum, 2017). Students who obtain an associate degree earn $14,000 more per year on average than those with only a high school diploma. Students who obtain a bachelor's degree earn $40,000 more per year than those with only a high school diploma (The Campaign for College Opportunity, 2021b). Higher education offers better earnings for those who are supported to find success.

Effect of Low Completion on Existing Economic Inequality

Low completion rates perpetuate and exacerbate the existing economic inequality among people of color and people from low socioeconomic backgrounds. As 64% of California CC students are economically disadvantaged, the colleges play a key role in improving earning outcomes for the most marginalized populations (*2021 State of the System Report*). Low CC completion rates therefore pose a significant problem in advancing diversity, equity, and inclusion in society.

Economic Impact

Low CC completion rates threaten the competitiveness of the US in the global economy. As previously mentioned, CCs serve a large proportion of underserved groups and 42.8% of all undergraduates. Without higher completion rates, employers will continue to struggle to find skilled workers. The Bureau of Labor Statistics' April 2018 Occupational Outlook Handbook identifies 48 types of job that require an associate degree for an entry-level position and 46 types of job that require a postsecondary nondegree award, such as a credential, for entry-level positions. According to the Public Policy Institute of California, current trends suggest that California will have a labor shortage of 1.1 million workers with a bachelor's degree by 2030 and a shortage of 1.5 million workers with some college education (including associate and technical degrees) by 2025 (Bohn, 2014; Johnson et al., 2015). Access and completion of 4-year degrees, 2-year degrees, and certificates will be pivotal for the US economy.

What is the Role of Learning Assistance Centers in Student Completion?

Before exploring the role of LACs in student completion, one must define what LACs are. LACs are known by a wide range of names and may provide a wide range of services. The Glossary of Developmental Education and Learning Assistance Terms (Arendale, 2007) gives three definitions of an LAC. All three definitions agree that an LAC is a location that offers academic activities outside of the classroom setting. The definitions state that the center may focus on one academic area or several. The most common forms of support are tutorial and study skills assistance. One of the definitions stresses that an

LAC is an area for remediation. Frank Christ, who was instrumental in the creation and growth of LACs, stated in 1971 that LACs serve six purposes: (a) higher course grades; (b) a central location for tutoring; (c) a source for referrals to other services; (d) a library for study aids; (e) a training hub for paraprofessionals, peer counselors, and tutors; and (f) a faculty development center (Christ, 1971). Arendale (2004) provides a history of the development of LACs in which he points out that many LACs have evolved into full-service learning and teaching centers where both faculty and students are supported.

Table 1: Number of Learning Centers Providing Selected Services

Number of Learning Centers Providing Selected Services

	Disability Services	Tutoring	Academic Advising	First Year Experience	Academic Improvement	Women's Center	Grant Funded Programs	At-Risk Student Services
College or University N=83	42	76	30	15	56	0	23	33
Community College N=59	17	49	21	10	36	3	12	26
Total N= 142	59 42%	125 88%	51 36%	25 18%	92 65%	3 2%	24 17%	59 42%

Researchers surveyed 142 colleges primarily at the annual conferences of the National College Learning Center and the College Reading and Learning Association in 2007 to provide a snapshot of the different services offered at LACs. Table 1 gives the results of the survey (Truschel & Reedy, 2009). The authors include skills workshops under academic improvement and give several examples of workshop topics, from choosing a major to test-taking strategies. The variety of services and functions that LACs offer means that their role in student completion has changed over time and may be different across the more than 1,000 campuses in which they operate (Arendale, 2004).

LACs developed along with changing economic and federal policies, growth in enrollment, increases in student diversity, and a failure in student retention and academic success. Although not exhaustive, Table 2 presents the basic context of how the development of LACs coincided with the needs

of specific periods (Hashway, 1990). For example, LACs developed because of increasing enrollment, greater diversity, and a changing worldview of education.

Table 2: Development Timeline of Learning Assistance Centers

Period	Key Occurrences	Development of Learning Assistance Centers
Late 1700s to early 1800s	Childhood development.	**Bell–Lancaster system:** Older children called monitors (peer tutors) taught other children. Some classes had assistant teachers who supervised and trained monitors; others had head monitors and assistant monitors (Topping, 1988).
	Admissions Test Preparation American Universities Established	**Dame Schools:** Tutorial centers and boarding schools to prepare students for admission tests at Eton or Oxford (Gordon & Gordon, 1990). **Precollegiate tutoring & Remedial Tutoring:** Private tutors helped students prepare for admissions tests for Yale and Harvard, as well as for after admission. North Carolina implemented a preparatory department.
1800s		**Decline in tutoring and academic support.** **Some exceptions:** • Lancasterian system in New York City (Gerber & Kauffman, 1981). • Large, rural, 1-teacher classrooms often relied on child tutors. Still common as late as 1974 (Devin-Sheehan et al., 1976).
1940s	**Post-WWII government appropriations:** 1944 GI Bill supported around 1 million veterans to enroll in higher education by the fall of 1946. Over 2.5 million veterans would attend college in the following decade, bringing a much more diverse socioeconomic population to campuses.	**Reading clinics:** Barbe (1956) documented an increasing number of reading clinics to meet the need of the influx of students after WWII. Yet no universal strategy of implementation existed. **Counseling programs:** Counseling services served as a component of remedial programs by the 1950s (Kulik & Kulik, 1991). For example, students on academic probation may have been required to attend counseling where they would work on time management, modify their academic plans, or discuss their occupational preferences (Klingelhofer, 1954). Some research at the time indicated that students in counseling programs earned higher grade point averages than those who did
1950s	**Increasing student enrollment:** High school-to-college enrollment rate rose from 15% to 24%. Veterans from WWII, Korea, and Vietnam saw postsecondary education as necessary to enter the working world.	

		not participate, but the methodology was not as rigorous as current methods.
1960s	Resurgence of interest in US individualization of instruction.	Tutoring programs emerge across the US: • Homework Helpers in NYC, 1963. • Youth Tutoring Youth in the US, 1967. • Tutoring in Reading – Alex Dickson, 1972. • "Tutorial Community" of Melaragno and Newmark used peer mediators as the primary instructors and had professional teachers as managers of instruction rather than direct instructors.
	Civil rights legislation: • *Brown v. Board of Education* ends legal segregation. • 1964 Civil Rights Act and Lyndon B. Johnson's Great Society attempts to support students of color and the poor to access higher education. • 1964 Economic Opportunity Act and the Higher Education Act of 1965 supported traditionally excluded groups to seek higher education, including students of color, the poor, first-generation students, English-language learners, and students with disabilities. The Department of Health, Education, and Welfare would eventually take over these access programs.	**TRIO programs:** The Department of Health, Education, and Welfare established TRIO programs for first-generation and economically disadvantaged students. **Title III Strengthening Institutions Grant Program:** Provided funding for developing institutions to create learning assistance programs. **Pell and Perkins Grant Programs created.**
	Increased enrollment: High school-to-college enrollment rate increases to 35%. **Revolving door of higher education:** More diverse enrollment, but those who succeeded were predominantly White.	**Remediation:** Remedial courses became a mainstay of community colleges. Roueche (1968) found them to be ineffective and not based upon any methodology. **Reading/Learning skills centers:** In the 1950s some colleges had already established centers for their reading clinics, but in the 1960s more centers were established for populations who had been placed into remediation. Often the director of the counseling center oversaw such centers, and sometimes the centers were located inside counseling centers. This worked well, considering the role of counseling in remediation. Arendale (2013) calls this a "medical model" to remediation where symptoms of academic weakness are prescribed mandatory services as treatment. In one case, a Rorschach test was given to all incoming students to determine academic risk. The

		medical model helped establish the mindset that additional services exist only for those at risk of failure.
1970s	**Open-door admission policies:** In the 1970s, many 4-year institutions with restrictive admissions began to recruit students they felt were more academically able from the ranks of CCs. This practice left students deemed academically unprepared at the community colleges. Cross (1971) described "**New Students**" as first-generation, diverse in age, in the bottom third of their class, with a passive learning style, who overestimate their academic abilities. **Increased Enrollment:** High school-to-college enrollment rate increases to 45%. Large increase in adult and part-time students (NCES, 1993).	**Learning Assistance Centers (LACs):** LACs were first created and quickly adopted by hundreds of colleges across the US. By 1980, 75% of all postsecondary institutions had some form of an LAC (Sullivan, 1980).The space and services of LACs varied greatly. Some LACs offered tutoring areas, classrooms, computer labs, and offices. Many were housed inside campus libraries and served as locations to access specialized technology. The 1960s and 1970s also brought in modular learning where students did work independently with support. Thus, some centers offered short-term, noncredit opportunities. LACs also pushed back against the idea that remediation should take place in programs outside the immediate college mission. Instead, LACs were extensions of classroom instruction made to either deepen or supplement material presented in the curriculum. During this time, two luminaries of the LAC model emerged: Frank Christ and Martha Maxwell. Maxwell founded LACs at the University of Maryland in 1955 and the University of California Berkeley in 1968. Notably she wrote one of the first landmark books in the field, *Improving Student Learning Skills* (Maxwell, 1980). Christ founded the LAC at California State University Long Beach in 1972, wrote numerous articles, and designed an information system for learning assistance called LINDEX (Arendale, 2004).
	The Rehabilitation Act of 1973: Later supplemented with the 1990 Americans with Disabilities Act, which required institutions to provide accommodations such as additional time on tests, recording lectures, tutors, note-takers, counselors, and adaptive equipment for students with disabilities.	**Academic support for students with disabilities:** During this time and in the 1980s, some schools reported that students who used academic support services for students with disabilities met or exceeded the graduation rates of students without disabilities.

The question arises of how LACs have been included in past interventions. Table 3 presents the role of LACs in four of the major initiatives of the completion agenda. A recurring theme appears: Each

initiative identifies academic support as a key component of its plan, but largely leaves it to the institution to decide how to implement support.

Table 3: Role of Learning Assistance Centers in Interventions

Intervention/Program	Role of Learning Assistance Centers
Achieving the Dream (ATD): Community Colleges Count	How institutions integrate learning assistance is unique to each campus. ATD provides college spotlights where they briefly describe an activity that one college is doing. They also offer toolkits to help CCs decide how to approach ATD principles. Amarillo College restructured academic support under one coordinator, which allowed uniform processes, extended hours, and virtual tutoring (Achieving the Dream, n.d.-a). Other case studies vaguely indicated increased communication by faculty or counselors with students to direct them to academic and nonacademic support services (Achieving the Dream, n.d.-b, n.d.-c).
Gateways to Completion	Gateways to Completion focuses on the first-year experiences of college students. Again, the role of the learning assistance center (LAC) is decided by the individual institution. The initiative mentions tutoring and peer-assisted learning as a component of how to overcome barriers to success. Case studies such as at Nevada State College have given insights into how academic support could be integrated into gateway courses. Nevada State College created a 9-month summer institute that brought faculty from multiple disciplines together with LAC personnel. Ultimately, due to a low number of students visiting their LACs, they introduced course assistants that worked as part-embedded tutor, part-supplemental instruction facilitator, and part-peer mentor (Koch et al., 2017).
Complete College America (CCA)	Support serves as one of the CCA pillars. Under the support pillar comes the strategy of academic support. CCA states that tutoring that reflects the post-pandemic world should include asynchronous options, remote options, and early alert systems to provide just-in-time remediation (Complete College America, 2022).
Completion by Design (CBD)	In most CBD reports and documentation, LACs are never explicitly mentioned. The focus of CBD is on advising, with mentions of referrals to other services such as tutoring and workshops (Completion by Design, 2016; Tugend, 2016). Some colleges include training for noninstructional faculty and staff across campus to use success coach principles, such as incorporating aspects of mentoring and counseling tailored to the individual student (Valentine & Price, 2023). The LAC role is left for the individual institutions to imagine.

In addition to the role of LACs in past institutional change efforts, two other movements that involve academic support are worth exploring: First Year Experience (FYE) and empowerment programs. As used in this dissertation, empowerment programs include any program that offers special services for special populations, often traditionally marginalized groups (i.e., students of color, first-generation students, students from low socioeconomic backgrounds, or LGBTQ+ students). The special services that FYE and empowerment programs offer provide examples of a greater trend of combining academic and nonacademic support under one roof—often literally.

FYE programs come in a variety of forms. From an analysis of FYE programs offered at CCs, Bers and Younger (2014) identify six components that appear frequently: (a) first-year seminars, (b) learning communities, (c) orientation, (d) early alert systems, (e) academic advising, and (f) overall student engagement and success. Successful components of FYE may be expanded into general LACs to increase completion. For example, an institution may connect an early alert system between faculty, counseling/coaching, and LACs or embed academic advisors into LACs. LACs may also learn from FYE programs on which components have led to increased engagement with students at the college. Overall, research has shown that FYE does support student persistence and success (Nitecki, 2011; Pascarella & Terenzin, 2005; Scrivener et al., 2008; Windham et al., 2014).

I discuss empowerment programs because their services may also provide models for LACs. Examples of empowerment programs include TRIO (Talent Search, PASS, Upward Bound), EOPS, MESA, Ujima, Umoja, LGBTQ centers, centers for undocumented students, and Puente. Using EOPS (Extended Opportunity Program and Services) as an example, core services include academic and personal counseling, financial aid, and academic tutoring (CCCCO, n.d.). Many

components overlap with FYE and have been seen to be effective. A report by the RP (Reyes et al., 2002) group found EOPS students in their first academic year earned more units, had a higher cumulative GPA, were more likely to complete transfer-level English and math, had higher one- and two-year persistence, and were more likely to earn a certificate and/or degree within three years compared to non-EOPS students. LACs may hope to broaden aspects of empowerment programs to the broader campus.

What is the Guided Pathways Framework?

The GP framework stems from the argument that the "cafeteria model" of CCs makes it difficult for students to navigate from enrollment to graduation (T. R. Bailey & Smith Jaggars, 2015). The cafeteria model refers to how students may self-select from various programs and course offerings with little guidance—much like picking food in a cafeteria. GP asks CCs to redesign their entire structure and/or create a new structure designed around pathways from enrollment to career (T. R. Bailey & Smith Jaggars, 2015). The framework rests on four pillars that vary in wording, but the California Guided Pathways Project lists them as follows: (a) clarify the path, (b) help students choose and enter a pathway, (c) help students stay on the path, and (d) ensure that students are learning (*California Guided Pathways Project*, n.d.). Components of GP have existed for some time, and many of the initiatives discussed above sound like GP. Arguments for GP often stem from the report *The Shapeless River* (Scott-Clayton, 2011)*.

What Is the Theory Behind Guided Pathways?

The Shapeless River (Scott-Clayton, 2011) set the stage for GP. The report centers the argument for pathways from CC entry to exit around the structure hypothesis: CC students will be more likely to persist and succeed if institutions provide more tightly bound degree pathways with

fewer opportunities for them to deviate from their path and fewer bureaucratic obstacles in their way. Scott-Clayton (2011) argues that evidence for a structural problem is clear but admits that the evidence on how best to address the problem is less clear.

The report begins by outlining the evidence that a structural problem exists. *The Shapeless River* (Scott-Clayton, 2011) describes how a CC student must successfully decide what to do, plan how to do it, and follow through with their plan with limited guidance. For the many CC students who are first generation, low-income, or who may not have well-established preferences about what they want to do, there are many stopping points to success. Scott-Clayton points to studies in behavioral science that have shown that too many complex decisions often result in behaviors such as indecision, procrastination, self-doubt, and paralysis. In contrast, simplifying a set of options, such as organizing choices into smaller sets, has been shown to ease complex decision-making. Three consequences result from the complex choices that CC students must make: mistakes, delay, and dissatisfaction.

Students may make mistakes by relying on the most easily available information when enrolling. For example, a student may decide based on whether a friend is in the class or whether a particular class is a default option. Decision deferral may occur because students are uncertain about the consequences of their actions, or they believe they will figure out something better in the future. Lastly, students may be dissatisfied with their ultimate choice and stop pursuing education, just like a customer who has a bad experience with a product.

Scott-Clayton (2011) lays out potential solutions. First, institutions must improve information access and navigation through enhanced student advising and the use of technology. Technology enables one to simplify career/educational exploration, track student goals and

requirements, plan courses, and create early warning systems. For example, an online college advising tool may assist overburdened counselors. Second, institutions can create learning communities that simplify course choices and create peer networks. Third, a college may create a structured curriculum with integrated support. Lastly, Scott-Clayton calls for radical organizational change, which she describes with examples from the book *After Admission: From College Access to College Success*. The book argues that occupational colleges have an advantage over CCs by offering a "package deal" that includes a well-structured program with integrated services. An option for CCs may be to provide a smaller menu of prepackaged college pathways. Since the publishing of the *Shapeless River*, much of the literature on GP has been dominated by the CCRC at Columbia University.

The CCRC picked up where Scott-Clayton left off, producing several publications. Works such as *Redesigning Community Colleges for Student Success: Overview of the Guided Pathways Approach* (Jenkins, 2014) and the book *Redesigning America's Community Colleges: A Clearer Path to Student Success* (T. R. Bailey & Smith Jaggars, 2015) continue and extend Scott-Clayton's work by giving an overview of a GP design. Other work attempts to provide evidence for GP success by examining individual pillars of the framework (clarifying the path, entering a path, staying on the path, and ensuring learning) or by exploring case studies.

Redesigning Community Colleges for Student Success (Jenkins, 2014) and *Redesigning America's Community Colleges* compare the current cafeteria model of CCs with GP in terms of intake, program structure, developmental education, and curriculum. In the cafeteria model, students face too many choices, they are placed in remedial dead-ends, their progress is not monitored, and an incoherent curriculum leaves them without a clear sense of meaningful learning. GP, on the other hand, uses degree maps with clear learning outcomes, meta-majors or broad fields

of interests that students must choose when entering their program of study, developmental education integrated into corequisite coursework, progress tracking to allow for early alerts with support mechanisms, and bridges to college programs where high schools and noncredit programs may take advantage of the program maps to guide students to appropriate pathways.

How Has Guided Pathways Been Implemented?

GP has become a national movement among CCs over the last several years. As of 2019, around 300 schools have begun GP reforms as part of state or national initiatives or of their own accord (Jenkins et al., 2019). A significant part of the push toward the pathways movement was the 2015 American Association of Community Colleges Pathways Project, which piloted GP with 30 institutions nationwide (Jenkins et al., 2017). Due to the CCRC's partnership with the Pathways Project, much of the work on GP implementation is connected to the CCRC.

The CCRC has provided early quantitative and qualitative data on how the Pathways Project adopters have begun GP implementation. In 2017, CCRC researchers released findings from telephone interviews of 30 Pathway Project institutions (Jenkins et al., 2017). All 30 schools discussed their self-assessment of their GP implementation (The Community College Research Center, 2018), and focus groups of faculty, advisors, and students were chosen at six of the schools. The researchers found that all schools had strengthened advising, two-thirds had finalized meta-majors, and most had begun mapping pathways and established learning outcomes for career programs and general education; many, however, struggled to implement new procedures and systems. In another work, Jenkins et al. (2018) provide evidence that GP early adopters have had a positive effect on first-year completion of college math and English, on-time graduation, graduation rates, and student experiences. The same report provides case studies of three Pathway Project schools that have implemented three of the GP reforms: meta-majors, career exploration,

and intensive advising. Cleveland State Community College tied their meta-majors to their regional labor market and built orientation and first-year seminar around those meta-majors. Jackson college redesigned their advising by creating student success navigators to guide students through the four pillars of GP. Indian River State College has used K-12 partnerships to get students to begin career exploration before they come to college.

In California, the California Guided Pathways Project chose 20 California CC applicants in 2016. The participating institutions attended six 2-day institutes that focused on how to implement key elements of GP and provided a team of GP coaches to help the participating institutions in their effort (*California Guided Pathways Project*, n.d.; Foundation for California Community Colleges, n.d.). In 2017 the CCCCO expanded this effort by offering the California Community Colleges Guided Pathways Award Program, which set aside $150 million in the budget for CCs to adopt GP. In exchange for funds, colleges had to attend at least one Institutional Effectiveness Partnership Initiative Pathways event, complete a GP self-assessment, and submit a GP work plan. Since the initial funding in 2017, all 116 California CCs have begun GP adoption. The CCCCO has created a GP advisory committee, provides GP regional coordinators, and offers a variety of tools on a GP website (*Guided Pathways Legislative Report*, 2018).

Some previous research has specifically examined GP in California. The CCCCO released the *Guided Pathways Legislative Report* that summarizes the implementation of GP across all California CCs using the Scale of Adoption Assessment, a self-assessment instrument developed by the CCRC. The report indicates that most institutions were at the "planning to scale" stage and gives an assessment for each pillar of GP. On the assessment, schools ranked highest on "entering the path" and lowest on "help students stay on a path" (*Guided Pathways Legislative Report*, 2018). In 2018 Ashby investigated how college presidents used strategic governance in GP

implementation, but the study largely focused on aspects of leadership (Ashby, 2018). Bailey-Hoffman (2019) researched how college and academic senate presidents at three California CCs overcame barriers in GP implementation. The findings centered around higher level challenges like communication between the Chancellor's Office, using regional networks, and district logistics. Cesar-Davis (2020) examined how young adults at CCs were making decisions about their academic major or career in a GP context through interviews primarily with students but also faculty. The paper asserts that the GP model does not provide the structure for students to explore their major or create a way for faculty to guide students in their exploration. The study warns that GP may miss key implications if the histories of marginalized students are not considered.

What is the Role of Learning Assistance Centers Within Guided Pathways?

Throughout the literature on GP, academic support and tutoring is referenced but no detail is given. For example, in the GP Scale of Adoption Assessment (The Community College Research Center, 2018), both Area 2 "HELPING STUDENTS CHOOSE AND ENTER A PROGRAM PATHWAY" and Area 3 "KEEPING STUDENTS ON PATH" mention that special support should be in place for gateway courses, college-level courses, and for students identified by an early alert system. Offering support for gateway and college-level courses is mentioned in many other CCRC articles on GP and is often tied to advising (Jenkins et al., 2017, 2018, 2019, 2019). The only more detailed discussions of what practices an LAC may adopt to support GP are scattered across case studies and interviews.

A few interesting examples of how LACs may support GP come from the California Guided Pathways Legislative Report (*Guided Pathways Legislative Report*, 2018). Skyline College increased staffing and prioritized tutoring along with supplemental instruction to support the adoption of their corequisite math sections. They also created student success teams that

include an academic support specialist from student services. Modesto Junior College offers a program of noncredit math courses called "Math Emporiums" that provide just-in-time remediation. The emporiums were originally designed to help with acceleration past remedial math courses and have been adapted for a post-AB 705 California (*Math Emporium - MJC*, n.d.). However, the future of noncredit math courses offered prior to enrollment in a math course that satisfies a student's program requirements may be in question with the implementation of AB1705 (*FAQs for STEM Calculus Pathway Placement and Initial Enrollment*, 2024)

The CCRC case studies offer a few details into what LACs may do in GP implementation. At Northeast Technical College, students take an assessment in the first 2 weeks of class. Faculty use the results to refer students to support services. Similarly, Indian River State College gives students a diagnostic test in their first week in gateway courses. In the second week, a tutor visits the class to discuss all the services offered. Tutoring is optional, but the institutions are considering making it mandatory for students who enter gateway courses and score low on the diagnostic (Jenkins et al., 2017).

Just as with the previous completion agenda interventions mentioned earlier in the piece, what LACs do in support of GP rests on their unique needs.

What Challenges Have Arisen for Guided Pathways?

Researchers have argued that GP makes false assumptions regarding the student decision-making process and the outcomes that will result from fewer pathways. Rose, Neri, and Rios-Aguilar (2019) contend that streamlined paths do not equate to better decisions for low-income students and students of color. GP also assumes that students undergo a cost–benefit analysis, but GP fails to acknowledge the role of equity, race, and racial privilege (Bensimon, 2017). Cesar-

Davis (2020) and Huerta et al. (2022) have shown that decision-making processes do differ between students of color and White students. Rose (M. Rose, 2016) expressed concern that, by examining only the structure of the institutions, the GP model downplayed the individual barriers that each student faces. Not only are career decisions complex processes, but they are also partly shaped by the inequitable academic experiences of low-income students of color (S. Rose et al., 2019). Rose (2016) openly states that the ideas of GP are beneficial but must be contextualized with students' lives.

An effort to embed equity at the forefront of GP has begun. Bailey (T. Bailey, 2018) from the CCRC focused on individual practices to instill equity into GP implementation. GP creates a structure where colleges can enact equitable policy and procedures and build an equity-driven culture. Rose, Neri, and Rios-Aguilar (2019) provide concrete recommendations for GP to bring in equity to GP implementation. Practitioners should take advantage of students' funds of knowledge and labor histories for exploratory Career Communities, provide work-based learning opportunities with diversity in mind, and use labor market data that are equity focused to drive practices.

SUMMARY OF THE LITERATURE REVIEW

LACs have the potential to provide tremendous support to CC completion under the GP framework. Empirical evidence has shown that LAC services increase student completion, and student completion is a central focus of GP (Bers & Younger, 2014; California Community College Chancellor's Office, 2017; Hatch, 2017; Soltani et al., 2017). In fact, GP specifically mentions special support for "academically unprepared" students to succeed in gateway courses and college-level coursework as soon as possible (The Community College Research Center,

2018). Beyond gateway course and college-level work, LACs can support the more structured academic tracks that GP hopes to create (T. R. Bailey & Smith Jaggars, 2015). To date, however, GP research has not focused on the avenue of LACs. With this dissertation, I identify and describe the experiences of Success Center faculty and staff as they implement GP and how these experiences have shaped the implementation of LACs in GP. The experiences and resulting practices will provide recommendations for California CCs that are looking at enacting reform and how to use their LACs in GP.

THEORETICAL FRAMEWORK

This dissertation uses Success Centers as an example of a college facing institutional change through GP. Although little research with a focus on Success Centers and institutional change exists, there is literature addressing the challenges and solutions that colleges have or should attempt when faced with institutional change. The theoretical framework draws on two key pieces of research: (a) Miller and Harrington's (2023) three internal reasons colleges struggle to implement and sustain institutional change, and (b) the methods of improvement science described by Hinnant-Crawford (2020) and others. Miller and Harrington's work provides the framework for an institution's struggles and recommendations. The methods of improvement science overlap with Miller and Harrington's work but focus on the tools to overcome the implementation challenges. Finally, I show how the two works set the foundation for the failures and successes of the MMC Success Center's implementation and why the framework centers equity for Black and Latine students.

Challenges in Implementing and Sustaining Change

Miller and Harrington (2023) selected GP as the lens through which to study institutional change. Their findings stem from a literature review based on peer-reviewed articles, public scholarship, and practitioner interviews. The authors provide three internal reasons why CCs have struggled to implement and sustain institutional change: (a) contextual challenges, (b) awareness and motivation, and (c) change management process challenges.

Contextual Challenges to Change

Contextual challenges to implementing and sustaining change include policies, practices, governance, budgeting, role-based and/or department silos, leadership support, and the impact of the COVID-19 pandemic. The authors organize contextual challenges into six parts, as summarized in Figure 5.

Figure 5: Six Components of Contextual Challenges from Miller and Harrington (2023)

6 Components of Contextual Challenges

Internal Structural Context	Although many colleges have attempted institution-wide reform they have rarely altered their internal structure. Departments, policies, and practices remain intact. Policies often conflict with each other and informal structures entrench practices, interests, and culture. The structure makes forming cross-institutional teams difficult and broader involvement seeks to form consensus rather than input.
Technical and Adaptive Context	Often a change effort involves an issue that seems to be purely technical, but the culture, context, and history of the institution must be addressed to implement technical pieces of a solution.
Stakeholder Involvement	A cross-institutional team provides the best opportunity to implement and maintain initiatives. Research shows that often academic affairs alone create change efforts and other parts of campus are left out. Guided Pathways touches each part of an institution so without broad stakeholder involvement reform will fail to be institutionalized.
Senior and Board Leadership	Change may involve the structure of the institution or policies that only senior leaders have the authority to act on. The board of trustees provides the policy and fiscal power needed to implement and sustain change. Both need to embrace supporting an initiative as they will be challenged when attempting to change long held systems. Changes of leadership mid-reform may be detrimental to reform as priorities and styles may change.
Broader Institutional Leadership	Stakeholders who serve in leadership positions must broaden. Leaders must embrace more innovative leadership styles that allow for a mix of top-down and bottom-up leadership without conflict. Leaders at all levels of the institution must understand the theory of change and embrace it in practice.
Financial and Public Health Factors	Institution-wide organizational change can be expensive and slow. The capacity to create and maintain change without financial support may be impossible even with strong buy-in across campus. COVID-19 has put a stress on the capacity of all stakeholders to engage in change. Stakeholders may struggle to focus on college initiatives on top of adapting to new technology and caring for loved ones. Still, research has shown how colleges may use federal resources to support students and build out new services that can be supported by initiatives like Guided pathways.

Awareness and Motivation Challenges to Change

Many stakeholders are not aware of the need for institutional change. Senior leaders routinely focus on macro-level college data and initiatives, and mid-level staff and faculty concern themselves with managerial tasks and individual classes. As a result, many mid-level stakeholders do not see the need for large-scale reform (Miller & Harrington, 2023). GP research polls have found that 45% of faculty know little about it (Center for Community College Students Engagement, 2020). In some cases, it may be that faculty and staff are only involved in implementation and do not understand their connection or role within GP. A top-down approach leaves mid-level practitioners in the dark about why changes are being made and ignores how changes will affect their daily responsibilities.

Moreover, faculty and staff who see the need for college-wide reform may suffer from a demotivating effect, dubbed "initiative fatigue." Initiative fatigue describes how some stakeholders view the many reform efforts to solve the completion agenda as being ineffective (Miller & Harrington, 2023). They are psychologically and physiologically drained. Others may feel that they are already doing enough or hold a philosophy contrary to an initiative. Some faculty or staff may decide that it is the students who need to do the changing or fear the uncertainty that comes with reform.

Change Management Process Challenges

For the change management process challenges, Miller and Harrington (2023) use models given by Kezar (2018) and Kotter (2012). Kezar builds her framework around the considerations of the type of change. She considers the (a) content, extent, and forces of change; (b) the external factors and institutional culture; (c) leadership styles, such as top-down, bottom-up, collective, and

shared leadership; and (d) an institution's theories of change. Kotter (2012) believes that change fails because of complacency, lack of stakeholder engagement, lack of a known vision, lack of short-term goals, declaring premature victory, and not embedding the change into the institution's culture. Although the two models differ, they both indicate the necessity for engagement, timing, leadership, and vision.

A lack of support and time for change management contributes heavily to failed change implementation. A survey of 1,600 CC leaders indicated that unclear processes presented the greatest barrier to change (Hussak, 2018). Mid-level leaders are often entrusted to lead change without the support, skills, or resources to do so (Klempin & Karp, 2018). CC faculty, staff, and leaders may not have a clear understanding of their role or how to support new initiatives. Many resources have been created to help institutions enact and sustain reform, but most practitioners do not know they exist nor have the time to study them (Miller & Harrington, 2023). Institutions should invest in change management processes that inform faculty and staff of the why, who, and what of an initiative along with ongoing reinforcement to sustain change. Support will come in the guise of time, training, and resources.

Recommendations to Overcome Change Management Challenges

Overview of Recommendations

Miller and Harrington (2023) provide a list of the recommendations to combat the contextual, awareness and motivation, and change management challenges that institutional change poses. I summarize the key recommendations for each challenge in Table 4.

Table 4: Miller & Harrington Recommendations

Challenge	Recommendations
Contextual	• Give all stakeholders opportunities to participate and help lead in the change effort at the institutional level. • Provide consistent messaging. • Align the budget with change efforts.
Awareness and Motivation	• Provide professional development around change for all leaders, faculty, and staff so that they understand their role and the need for change. • Keep all stakeholders engaged and updated on the need for change and the return on their investment when they embrace change.
Change Management	• Use a macro-level framework such as Kezar's. • Provide professional development to teach and develop the tools needed to implement change effectively. • Communicate the change in the context of the college's mission, vision, and values. • Use existing resources/toolkits or even look for coaching on change implementation.

Use of Improvement Science

Many of Miller and Harrington's (2023) recommendations are echoed in the beliefs of improvement science. The answer to how their recommendations can be accomplished lies within the tools of improvement science.

What Is Improvement Science? Improvement science provides a disciplined approach for practitioners to dive deeply into a system, its stakeholder involvement, and conduct and refine an intervention through rapid testing (Hinnant-Crawford, 2020). Bryk, Gomez, Grunow, and LaMahieu (2015) give six principles of improvement science: (a) be problem-specific and user-centered, (b) study variation in performance, (c) think about the system that provides the outcome, (d) provide measurements (they give three types of measurement), (e) use disciplined inquiry to

drive improvement, and (f) accelerate learning with networked communities. The remainder of this section discusses each of these principles.

Problem-Specific and User-Centered. Being problem specific and user-centered involves defining the problem of practice and asking who is involved or affected. A poorly defined problem will lead to an ineffective solution. To define the problem, those involved must be participants not only in giving information, but also in developing potential solutions. Once the stakeholders are brought in as collaborators, root cause analysis can take place. This is a method that helps users to look below the surface to identify the cause(s) of a problem. Common tools used for root cause analysis are the five whys, the fishbone diagram, and empathy interviews (Hinnant-Crawford, 2020).

Variation in Performance. Defining the problem requires a focus on variation in process and variation in outcomes. Variation in process considers the difference between how an initiative is planned and how it is carried out. For example, a classroom intervention will look different due to the variation in how instructors adopt the change. Outcome variation looks at differences between the desired and actual outcomes. Hinnant-Crawford (2020) gives two causes for outcome variation: special causes and common causes. A special cause is when a specific circumstance explains a phenomenon. For example, class attendance may drop after a COVID-19 outbreak. A common cause indicates that the system caused the outcome. Two tools that may be used to analyze the difference between a special event and a common event are run charts and Pareto charts. A run chart compares individual pieces of data to the median, and a Pareto chart compares specific data frequencies with the cumulative relative frequency.

Systems Thinking. Before an organization proposes a new initiative, it must shift its thinking from cause and effect to that of a complex system. Hinnant-Crawford (2020) defines a system as comprising interconnected parts that have a shared aim. The principle of emergence describes how these individual pieces of a system become more than the sum of its parts. Systems may be complex, but their parts still move in a patterned way, enabling outcomes to be predicted by assessing initial conditions(Sargut & McGrath, 2011). Senge (2006) identifies two components of systems thinking: seeing relationships and seeing processes. Improvement science offers tools to see the processes and relationships in the system to help identify a problem of practice. These tools are what education change-agents often lack.
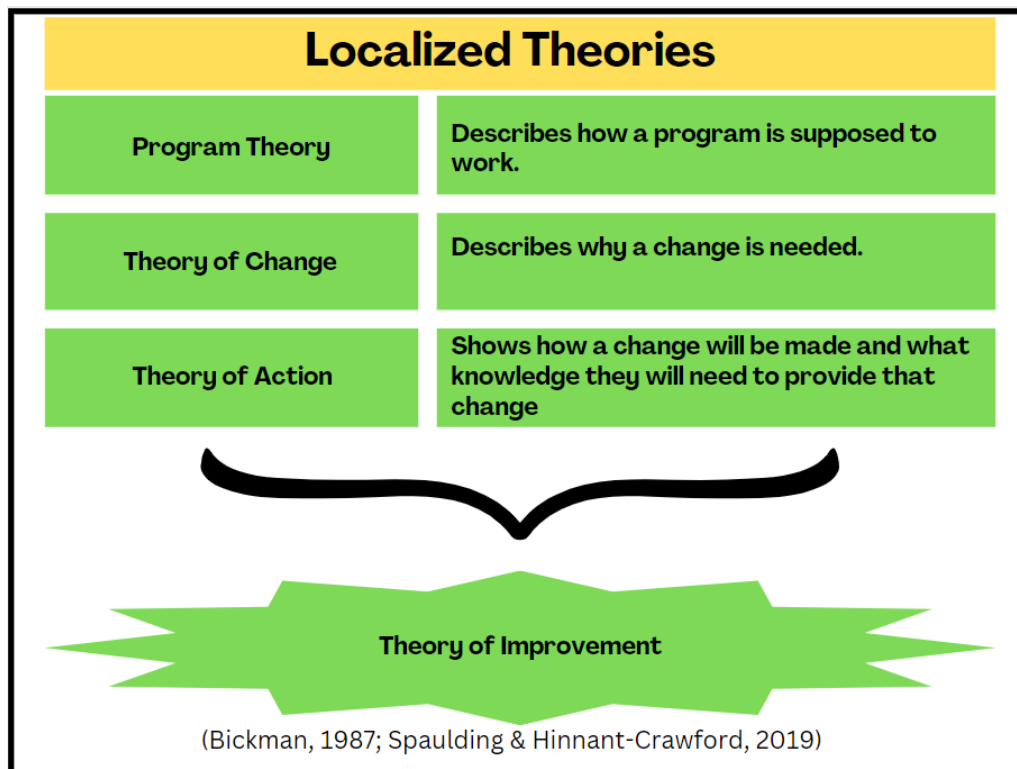
The complexity of the education system makes it difficult to tell where the causes of problems originate. Policies, practices, or personnel may be contributing to a problem. Regardless of the intention behind a system, the central law of improvement states that "every system is perfectly designed to get the results it gets" (Langley et al., 2009). Systems thinking views inequities as a systems problem(Bensimon, 2005). For instance, the central law of improvement implies that CCs are designed such that most marginalized students will never reach their academic goals. Senge argues that without systems thinking many of our current problems come from previous solutions (2006).

Hinnant-Crawford (2020) offers three common tools to shift one's thinking to systems: (a) a systems map, (b) a systems diagram, and (c) a process map. The tools help practitioners see how the system creates the problem, who needs to be involved, what interventions to take, and the complex influences on any one outcome. If an area such as the Success Centers fail to think in systems, then the probability of a failed initiative increases.

Creating Measurements. Measurements must be continuously considered if a program or area on campus, such as the Success Centers, hopes to implement and sustain change. Measurements provide a means to determine whether a change occurs and whether that change indicates improvement (Bryk et al., 2015). What to measure depends on an institution's belief about how things work in their system. An institution should ask why a proposed change creates a desired outcome and decide what measure(s) will show that the change was responsible for the outcome.

A theory of improvement proposes an intervention to change an outcome and explains how the intervention will affect the system (Hinnant-Crawford, 2020). Localized theories inform a theory of improvement and describe the implicit ideas or beliefs about how an institution and change should work. Figure 6 illustrates how localized theories help develop a theory of improvement.

Figure 6: Localized Theories that Create a Theory of Improvement

Localized Theories

Program Theory	Describes how a program is supposed to work.
Theory of Change	Describes why a change is needed.
Theory of Action	Shows how a change will be made and what knowledge they will need to provide that change

Theory of Improvement

(Bickman, 1987; Spaulding & Hinnant-Crawford, 2019)

The driver diagram is a key tool for illustrating a theory of improvement. It consists of an aim statement, primary drivers, secondary drivers, the change idea, and change concepts. The aim statement begins the diagram by describing a desired outcome that is measurable. It not only answers what to measure, but also indicates when to measure and by what time each target should be met. Researchers describe three types of measurement in education: measurement for accountability, measurement for research, and measurement for improvement (Bryk et al., 2015). Figure 7 describes each measurement type.
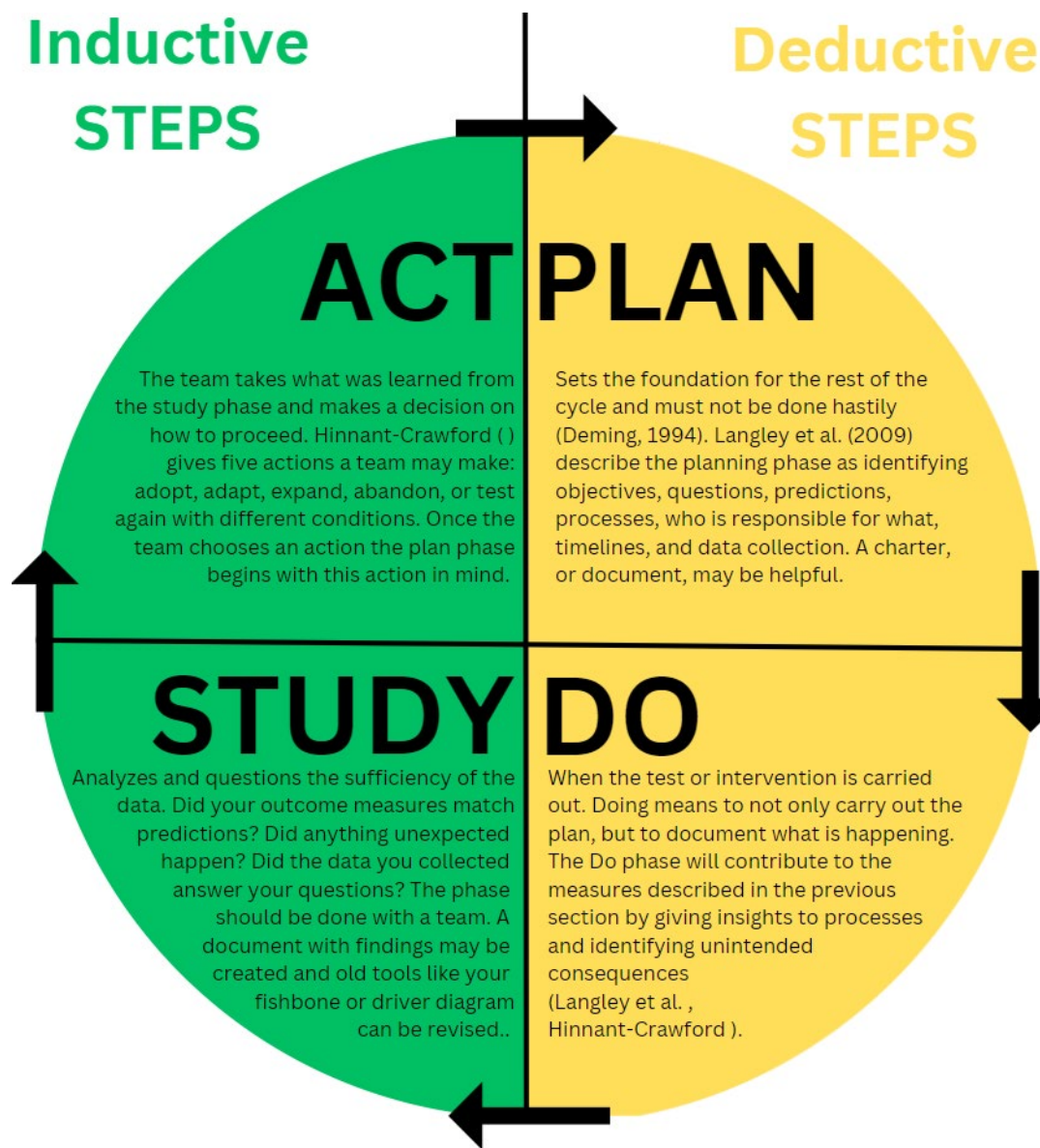
Figure 7: Three Types of Measurement

Three Types of Measurement	
Accountability measurements	Usually come at the end of a cycle – such as the success rate of a class. People tend to push back at accountability measurement because of the fear of failure.
Measurement for Research	Stresses collecting data for the purpose of predictive modeling or to make explanations.
Measurement for Improvement	Outcome measures: Assess if a change provided the desired outcome. Drive measures: Make ongoing assessments Process measures: Assess if the change is being implemented as intended. Balancing measures: Assess if the change worked without unintended consequences.

(Bickman, 1987; Spaulding & Hinnant-Crawford, 2019)

Disciplined Inquiry. The process of inquiry used in improvement science revolves around the Plan-Do-Study-Act (PDSA) cycle. Other methodologies and many versions of the PDSA cycle exist. Since the PDSA cycle provides the prevalent method, I focus on its general form. The cycle looks like a circle with the words "Plan," "Do," "Act," and "Study" (see Figure 8). The process begins with two deductive steps, plan and do, and then proceeds with two inductive steps, study and act.

Figure 8: PDSA Cycle

Inductive STEPS

Deductive STEPS

ACT

The team takes what was learned from the study phase and makes a decision on how to proceed. Hinnant-Crawford ( ) gives five actions a team may make: adopt, adapt, expand, abandon, or test again with different conditions. Once the team chooses an action the plan phase begins with this action in mind.

PLAN

Sets the foundation for the rest of the cycle and must not be done hastily (Deming, 1994). Langley et al. (2009) describe the planning phase as identifying objectives, questions, predictions, processes, who is responsible for what, timelines, and data collection. A charter, or document, may be helpful.

STUDY

Analyzes and questions the sufficiency of the data. Did your outcome measures match predictions? Did anything unexpected happen? Did the data you collected answer your questions? The phase should be done with a team. A document with findings may be created and old tools like your fishbone or driver diagram can be revised..

DO

When the test or intervention is carried out. Doing means to not only carry out the plan, but to document what is happening. The Do phase will contribute to the measures described in the previous section by giving insights to processes and identifying unintended consequences (Langley et al. , Hinnant-Crawford).

Improvement science practitioners may use the PDSA cycle flexibly in many stages of improvement. For example, a PDSA cycle can help define an aim or narrow the scope of a problem before an intervention is in place. The PDSA allows for small-scale tests that are at the heart of improvement science (Crow et al., 2019). The PDSA also supports a common improvement science adage: "learning by doing" (Carnegie Foundation, 2018).

Networked Communities. Bryk, Gomez, Grunow, and LeMahieu (2015) argue that using network improvement communities (NICs) accelerate learning when doing improvement science. NICs (a) focus on a single aim, (b) view problems from a systems-thinking perspective, (c) subscribe to the use of improvement science, and (d) act to disseminate effective interventions. NICs allow for multiple interventions to occur simultaneously and provide a foundation for improvement science to work. Interventions can occur with a shared aim, shared approach, and the ability to inform one another. Russel et al. (Russell et al., 2017) describe five ways in which NICs promote improvement science: (a) by developing a theory of improvement, (b) by using improvement science methodology, (c) by developing an infrastructure to handle measurement and analysis, (d) by organizing and maintaining the network, and (e) by creating an identity with norms and a culture for the network. Creating NICs, however, provides a challenge for any institution. Bryk et al. (2015) suggest creating a network initiation team to do some of the early work in developing the NIC. Despite challenges, NICs may serve as the best means of accelerating change in the complex education system.

Why Do Improvement Science? Advocates of improvement science assert that institutional stakeholders are quick to begin a new initiative or solution but just as quick to abandon one for another (Rohanna, 2017), a phenomenon that has been described as "solutionitis" (Bryk et al., 2015). As a result, progress in education is slow. One researcher claimed that if Rip Van Winkle

were a doctor or engineer, he would wake up unemployed; if he were a teacher, he could walk into a classroom and start teaching (Slavin, 2002). Solutionitis runs rampant because educators do not have the tools to lead effective change processes. It is the goal of improvement science to get better at getting better.

Improvement science subscribes to the belief that educational practitioners have an abundance of ideas, but most ideas fail to come to fruition or change from their intention (Bryk & Yeager, 2013; Hinnant-Crawford, 2020). When an idea is adopted, the three challenges Miller and Harrington (2023) identify act as a filter that squeezes the idea into something barely recognizable or does not allow the idea to pass through at all. Improvement science, however, provides an idea with the right amount of malleability to pass through the filter. Although the idea may have changed in the process, the system informed those changes through inquiry; it did not beat them into submission. Figure 9 displays the filtering process.

Figure 9: Filtering Process of Ideas
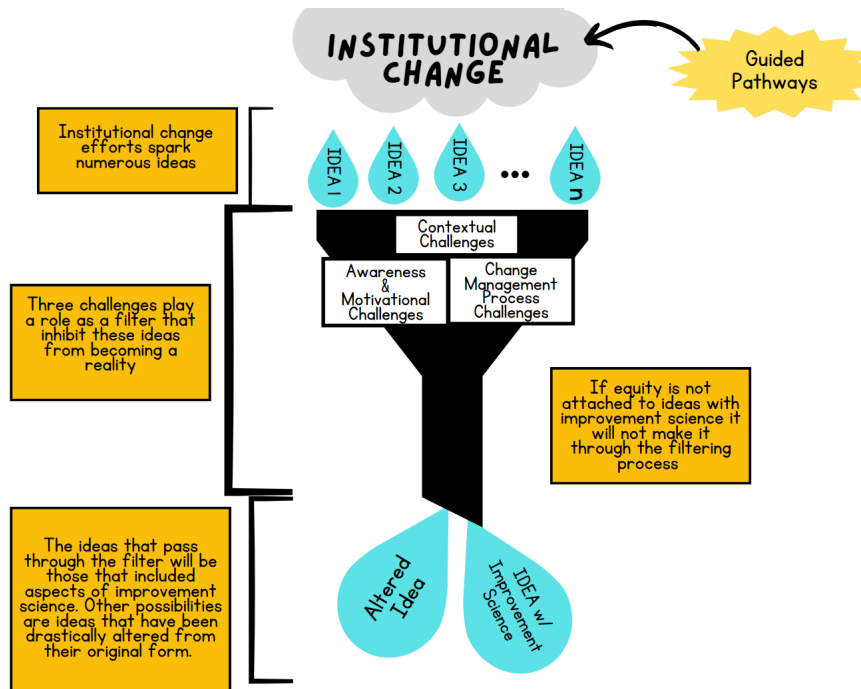
Improvement Science as a Tool for Equity

Improvement science researchers are beginning to discuss the methodology's relationship with equity and anti-racism. On one hand, the practices of improvement science naturally fit for the continuous fight for liberation of communities of color. On the other hand, improvement science must be more purposeful in centering equity in its practice.

Hinnant-Crawford (2020) argues that improvement science is not a linear, positivist, White-man's method, but keeps in line with the traditions of marginalized groups navigating a space not built for them. She quotes Dr. King that, "Change does not roll in on the wheels of inevitability but comes through continuous struggle" (as cited in Hinnant-Crawford, 2020). Hinnant-Crawford hopes to use improvement science to work for that change. Furthermore, as a Black woman she understands she must face the duality of fighting for long term systemic changes while operating in the current climate – she must push for police reform while teaching her son to keep his hands out of his pocket and not make sudden movements around police officers. Improvement science spoke to Hinnant-Crawford because its call for relentless persistence aligned well with those she most admires. Furthermore, the central law of improvement states that a system is designed to get the results it gets – in effect, acknowledging that if inequities exist, it is because the system is designed to do so. Thus, she uses improvement science as a tool to understand the system and fight for change.

Additionally, researchers in organizational improvement contend that when improvement science approaches are centered around explicit racial justice imperatives it can become a tool to disrupt routines harmful to underserved students (Diamond & Gomez, 2023; Irby et al., 2020).

Irby et al. (2020) note that improvement science inquiry cycles act as if race is not embedded in each stage and proposes race-conscious inquiry cycles that combine ideas from improvement science and anti-racist literature. Diamond and Gomez (2023) advocate for improvement tools that force stakeholders to slow down and engage in critical reflection and action to reimagine embedded organizational routines- an equity pause. Organizational routines are often taken for granted practices that perpetuate white supremacy and anti-Black racism (Diamond & Gomez, 2023). They believe that improvement science offers tools that allow for a reflection and reimagining of such routines.

CHAPTER 3: METHODS

Research Design and Rationale

This study employed a qualitative approach with a case study design. To answer the research questions, I explored the experiences of Success Center staff and faculty in engaging with Latine and Black students at MMC during their GP center redesign. The data were collected from semi-structured interviews and artifact collection, including documents, pictures, and video, publicly available or from stakeholders.

My purpose of exploring and understanding the relationship between humans and a phenomenon matches Creswell's description of a qualitative research approach (Creswell & Creswell, 2018). Creswell and Creswell (2018) say that qualitative research supports an inductive style that intends to describe the complexity of the situation and gives credence to the individuality of the participants. A qualitative approach fits my study, since the research questions need the participants to give in-depth responses that embrace the complexity of their individual experiences.

A qualitative case study approach works best based on the nature of my research questions and the examination of a specific project.

Yin (2018) gives three reasons a researcher may use a case study design, each of which fit the purpose of my study. First, a case study may be used for research questions that are defined broadly. My questions are broad to allow for deep descriptions by participants. Second, a case study may be used to consider complex multivariate conditions. My study cannot be broken down into a correlation between two variables, but rather involves several individuals from different Success Centers (i.e., the study is complex and multivariate). Third, a case study may rely on multiple types of evidence. I rely on both interviews and artifacts to answer the research questions. Similarly, Creswell and Creswell (2018) state that a case study design may be used to provide an in-depth exploration of a program, and researchers collect data using a variety of procedures. My dissertation presents an in-depth exploration of Success Centers with two types of data collection. Hence, my study matches well with the descriptions of a case study approach.

Site and Population

MMC was selected because of its GP implementation in its LAC redesign and its accessibility for research. In accordance with the GP framework, in 2016 MMC adopted six meta-majors, called Career Communities: (a) STEM; (b) Business & Industry; (c) Health Sciences & Wellness; (d) Liberal Arts; (e) Social & Behavioral Sciences; and (f) Arts, Communication & Design (Meta Major College, n.d.). Meta-majors serve as an essential practice in GP implementation. MMC embraced their Career Communities by redesigning their LACs to match each meta-major. The LACs were transitioned into Success Centers in 2019, and each Career Community had one dedicated Success Center. This was a novel design. According to the websites of 14 CCs in the greater Los Angeles area and several email follow-ups for clarification, only one

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other CC besides MMC has adopted a meta-major model for their LACs (see Appendix B). Between the two institutions, I chose MMC due to its past partnership with my graduate program and my employment at the site.

Although I chose MMC due to its unique LAC redesign, the institution mirrors other California CCs in several ways. As shown in Table 5, the students enrolled at MMC are representative of the statewide population of California CC students in terms of ethnicity. Along with a close match in ethnicity, MMC is classified as a Hispanic-serving institution, meaning its enrollment is at least 25% Hispanic, along with 76 of California's 116 CCs (Malcom-Piqueux et al., 2012). The age demographic of MMC trends slightly younger (see Table 6), and its enrollment trends larger, which may introduce some limitations to the study (Meta Major College, 2022).

Table 5: Student Enrollment at MMC an CCs Statewide, 2020-21

Ethnicity	MMC ($n = 23,600$)	California CCs ($n = 1.8$ million)
Hispanic	48.00%	46.04%
White	13.82%	23.09%
Asian	26.17%	11.38%
African American	3.65%	5.59%
Unknown	4.52%	6.05%
Multi-Ethnicity	3.61%	3.81%
Filipino	N/A	2.80%
Pacific Islander	0.12%	0.40%
Native American	0.10%	0.35%

Note. Equity Dashboard - Meta Major College, 2021.; *Key Facts | California Community Colleges Chancellor's Office*, n.d.). MMC = Meta Major College; CC = Community college.

Table 6: Age at MMC and California CCs

Age	MMC	California CCs (n = 1.8 million)
≤ 20	29%	26.8%
20–24	40.9%	30.9%
25–34 for MMC 25–39 for California CCs	20.7%	26.9%
35+ for MMC 40+ for California CCs	9.2%	15.4%

Note. (IPEDS, 2020; *Key Facts | California Community Colleges Chancellor's Office*, n.d.). MMC = Meta Major College; CC = Community college.

MMC's GP implementation timeline is like other California CCs. MMC did not participate in the 2016 California Guided Pathways project, which was a competitive program of 20 colleges to begin institution-wide GP changes (California Community College Chancellor's Office, 2017; *California Guided Pathways Project*, n.d.). Rather, MMC began adoption when the Governor's 2017–2018 budget gave $150 million for GP implementation (California Community College Chancellor's Office, 2017). Bailey-Hoffman (2019) found that the financial support from the California Community College Chancellor's Office played a key, if not the primary, role in beginning GP implementation at many California CCs in the Los Angeles area. The 2018–2019 Guided Pathways Legislative Report provides further evidence of MMC's typical implementation timeline. The mean score for all colleges was 2.86 on a scale of 1 to 5, where 5 indicates that the GP implementation is at scale and 1 indicates it is not occurring (*Guided Pathways Legislative Report*, 2018). Likewise, MMC reported in its 5-year plan created in 2018 that all activities related to GP were either at "early adoption" or "scaling in progress" (Meta Major College & NOVA,

2018). The 2.86 score suggests that many California CCs were at a similar point to MMC and may be interested in their LAC redesign. The 2018 MMC 5-year plan and the Guided Pathways legislative Report (2018) provide the most recent markers of where MMC and other institutions collectively are today.

As well as being representative in demographics and GP implementation, MMC is an attractive choice for its success in student completion, which may indicate the use of practices worth sharing. The school finished first in California and third in the nation for total degrees awarded to students with minority backgrounds, first in the state for the most transfers to the UC and CSU systems in 2020, first in California for degrees granted to Latine students, and second nationally for degrees granted to Asian American students (Diverse Issues in Higher Education, 2019). In 2017, 2019, and 2021, MMC was a top-10 finalist for the Aspen Prize for Community College Excellence. Members of MMC's LACs presented at the Association of College Teaching & Learning in 2021 and 2022, as well as at The American Association of Colleges and Universities conference in 2021 (Talaoc et al., 2022). Clearly, the institution has been well recognized for excellence.

Sample

At MMC, I performed subjective sampling of 6 of the staff and/or faculty representing each of the six Success Centers and two administrators that oversee components of the Success Center redesign. The administrators were interviewed to provide context for the Success Center redesign at the institution. To choose Success Center participants, I began by reviewing Success Center data disaggregated by race. I identified centers that had a higher percentage of usage by Black and Latine students compared to the other Success Centers. Some centers had a high percentage of usage by Latine and Black students but very little student usage overall. On the other hand, some

centers had more visits by Latine and Black students but the percent usage of Latine and Black students was lower. For both these cases I identified individuals affiliated with those centers using the MMC website. Initial interviews only served as a starting point to naturally discover other individuals that participants recommended to help answer the research questions. An intake survey was given to all participants that asked for employment classification, role at their Success Center, years at MMC, and participation in activities or committees. I included questions about activities or committees to gage possible knowledge of GP.

Data Collection

Data collection consisted of interviews with Success Center staff and faculty, administrators, and a review of relevant artifacts. The questions and artifacts were related to the LAC reorganization into Success Centers, student services that fall under one of the GP pillars, or engagement with Black and Latine students. In this methodological triangulation, each method informed the other, giving a holistic answer to the research questions.

The interviewees were staff and faculty working in the Success Centers and administration who participated in the LAC redesign. Eight interviews were conducted to account for at least one participant from each Success Center and the administration. The interviews were semi-structured to allow the participants to provide the depth necessary for each question. Questions asked about how centers engage with Black and Latine students, challenges during the GP redesign, and if the redesign impacted engagement with Black and Latine students (See Appendix E). The interviews took place at the participant's campus or via the video conferencing software Zoom. The interviews lasted 1 hour and were recorded using Otter.ai.

Artifacts were collected before and after the interview sessions. Before the interviews, I conducted independent research on the MMC website, social media, and public documents shared with me regarding campus activities. I looked for documentation that mentioned (a) GP efforts, (b) the reorganization of the LACs into Success Centers, (c) services at the LACs related to GP, services targeting Black and/or Latine students, and (d) special supports for "academically unprepared" students. Examples include flyers, center artwork, webpages, and public reports. The artifacts collected before the interviews served as evidence for findings and informing the interviews. In turn, I anticipated that the interviewees might mention additional artifacts for review. If a relevant artifact emerged through the interview process, the participant was asked whether they were willing to share the documentation, and a written request was included in a post-interview email (see Appendix H). Physical artifacts were copied or photographed for future analysis.

Data Analysis

To analyze the data, I followed the five steps provided by Creswell and Creswell (2018):

1. I organized and prepared the data for analysis. I imported the interview transcripts into MAXQDA, where I had created a set of predetermined codes. The predetermined codes can be found in the codebook listed in Appendix H. Each artifact had its own document imported into MAXQDA. Artifacts and interviews were catalogued according to what Success Center the participant worked in, whether they were faculty or staff, and by the artifact described.

2. I read the interview transcripts and examined the artifacts. In my initial reading of the transcripts, I checked them for accuracy. I did not perform any coding during this step

but conducted general highlighting and writing rough notes. For each artifact, I took general notes in its corresponding document.

3. I coded the interview transcripts and artifacts. I used two types of coding described in Creswell and Creswell (2018). First, I used the list of predetermined codes in my codebook (Appendix H). The predetermined codes ensured that I looked for information that answered the research questions. Second, I used emerging/surprising codes for topics that I did not anticipate. I then added the emerging codes to the MAXQDA project. Finally, I reexamined the data using the emerging codes.

4. I developed a description of the data and generated themes. First, I used coding to help create a general description of the reorganization of the LACs into Success Centers. Second, I categorized my codes into five to seven themes (Creswell & Creswell, 2018).

5. I determined how the themes would be represented. Coding helped me decide how the data should be organized and presented: for example, whether to write a narrative, provide tables of findings, or construct a timeline.

Positionality and Ethical Issues

I acknowledged my role within MMC but consistently positioned my research as a graduate student at the University of California, Los Angeles. I have met or know most of the faculty and staff at MMC's Success Centers, so I may have been viewed as a colleague rather than a researcher. I believe my professional position helped the participants feel more comfortable discussing successes and pitfalls, since I am part of their community. Thus, while I acknowledge my professional position at the college, I established my role interviewing them primarily as a student researcher. In doing so, I was mindful not to lead with my questions, to ensure that terms were

clearly defined for non-LAC professionals, and to allow the sessions to turn into a personal conversation between two parties.

I used the Code of Ethics of the American Educational Research Association to guide my ethical considerations. I closely followed the section on confidentiality and informed consent. For example, since individuals who work in LACs represent a smaller community on campus than other departments, I took precautions to ensure that the participants could not be identified. I did not refer to specific individuals, used a sample size of six, and presented common threads in terms of proportions (e.g., "Four of the six participants stated … ") or general adjectives that describe amounts (i.e. some, many, none, or all). Along with informed consent, the expectation of confidentiality and the limits of confidentiality were given in writing and discussed (see Appendix J). Participants were told that their participation would be kept anonymous and that the data they provided would be published as part of a dissertation. The informed consent repeated the voluntary nature of participation more than once, and it was read out loud to make sure that the participants did not feel coerced.

The study data has been kept secure. Interview recordings, interview transcripts, member checks, and artifact photographs/copies have been password-protected. These files are stored on my laptop and on an external hard drive that only I have access to. Upon completion of the study, all files will be deleted.

Reliability, Validity, Credibility, and Trustworthiness

To give credibility to my analysis, I used several strategies to mitigate threats. First, I present any nonsensitive artifacts in the appendices so that readers can better critique my analysis (Creswell & Creswell, 2018). I also triangulated my findings by comparing artifacts to interviews

and comparing the interviews of different parties with each other. To ensure not to misrepresent artifacts or interview statements, I performed member checks after coding the transcripts. The transcripts themselves were double checked for accuracy, coding was checked for inconsistencies, and all processes (interview protocols, settings, coding) are accurately explained or fully presented when possible, in this dissertation.

Study Limitations

The geography and demographics of MMC do not match every California CC. As a result, the findings of this study might not be generalizable to some campuses. On the other hand, MMC does closely represent urban CCs in California with a large Latine population.

The small and purposeful sample of the dissertation may result in findings not shared by all MMC Success Center stakeholders or the broader LAC community. With only eight interviews, many voices have not been heard, and key themes occurring at MMC may have been missed. On the other hand, eight interviews for six centers allowed me to capture many of the key themes that Success Center staff/faculty at MMC had been experiencing. Furthermore, MMC has its own culture that will be reflected in findings that may not match the point of view of others working in LACs. MMC's mission, vision, and values, although not necessarily embraced by all at the college, center around the intersectionality of each student, with a focus on antiracism, cultural humility, and social justice. Readers who do not embrace these tenets may find themselves in disagreement.

While this work provides an in-depth view of the faculty and staff that run the Success Centers, it does not address the viewpoints of other communities at MMC, such as tutors, students, most administration staff, and faculty/staff not involved in the Success Centers. Future studies that offer other perspectives would complement the research well.

Important questions about the effectiveness of the GP redesign remain unanswered. Although I asked for the Success Center personnel's opinions of the redesign, my questions did not try to make a case about whether the GP implementation had resulted in higher success or retention. As of 2018, however, no California CCs had reported that their GP efforts were fully to scale, and MMC began implementing its center redesign in the 2021–2022 academic year (*Guided Pathways Legislative Report*, 2018). It may be premature to begin looking for quantitative results for GP overall and, in the case of this study, the impact of GP implementation at the MMC Success Centers.

CHAPTER 4: FINDINGS

The purpose of this case study is to describe how MMC Success Centers engage with students of color and determine whether the Success Center redesign influenced that engagement. The findings were derived from interviews with administration, faculty, and staff who worked in or oversaw the Success Centers and related documents. First, I describe how the Success Centers have engaged with students of color, beginning with a formal initiative that came to light. Second, I describe the vision for the Success Center redesign effort and explore whether the redesign had any effect on the engagement of Latine and Black students.

Success Centers' Engagement with Students of Color

The purpose was not to create a list of ways participants engaged with students (for which I would have used a survey); instead, I present what I heard participants say they have done, how it has worked, and their feelings toward their efforts. The interviews revealed that centers used many techniques described in the literature. More interestingly, a story emerged of how the informal techniques came together into a formal approach and then fell apart. To put the interviews

into context, I begin with the creation of a formal initiative titled Tutors of Color by MMC faculty before moving onto the interviews to complete the picture.

Finding 1: Engagement Through a Formal Initiative Called Tutors of Color

The Tutors of Color initiative began on April 23rd with a 2.5-hour retreat for Success Center staff and faculty. The agenda had eight points presented in Figure 10.

Figure 10: Tutors of Color Retreat Agenda
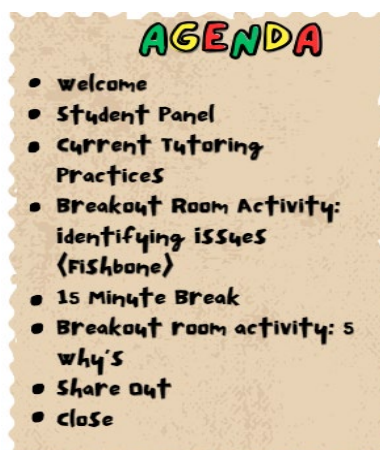
The introductory slides gave an overview of MMC Success Center demographics, the idea of belonging, or feeling part of the institution, and three questions: (a) How have spaces been constructed and racialized? (b) How can we disrupt power imbalances? (c) How can we better promote these opportunities to students of color? Following the introduction, a student panel consisting of Black and Latine students sharing their experiences inside the centers informed a

series of activities designed to create an intentional plan to engage with Latine and Black students at the Success Centers.

Armed with the information from the introduction and student panel, participants were divided into groups to collaborate on a fishbone diagram. Figure 11 gives an example of a fishbone diagram.

Figure 11: Fishbone Diagram from Tutors of Color
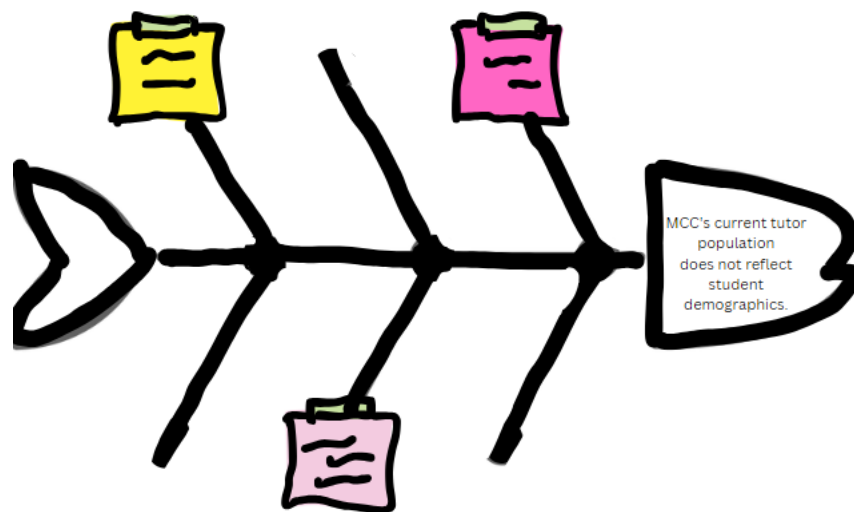
In the head of the fish a problem statement is given. In the diagram above, I placed the statement given to MMC Success Center staff and faculty in the head. The problem statement was articulated by the current dean overseeing the Success Centers. They indicated that if the tutor population matched the demographics of MMC, Latine and Black students would feel a greater sense of belonging inside the spaces. To complete the fishbone, participants placed possible responses to the problem statement on the bones of the fish (represented above with sticky notes), clustering them into themes. The fishbone gave five general themes concerning why MMC's current tutor population does not reflect student demographics:

- Outreach: Outreach is not robust enough and can be improved.

- Hiring: The hiring process needs to be improved.

- Faculty/Staff & Student Communication: Communication to faculty and students is not effective enough.

- What Is a Tutor? Student applicants are unsure of what it means to be a tutor, which leads to hesitation in applying. This theme was later put under Faculty/Staff & Student Communication.

- Job Security & Flexibility: Because these are student/temporary positions, there is not enough job security for some applicants. Additionally, participants felt that schedule flexibility would make employment more accessible for students with personal/family obligations and busy academic schedules.

Each theme underwent a five-whys process: asking why in response to the initial statement and then asking why in response to each answer four more times. This process supplied potential solutions as a next step for the program to achieve. The overall goal of the program was to increase the percentage of Latine tutors from 28% to 35% and the percentage of Black tutors from 4% to 8% by the following spring semester.

To work on the next steps, a series of Tutors of Color meetings occurred. According to documentation, the first meeting occurred in the spring of 2021, three meetings in the fall of 2021, and only one meeting in the spring of 2022. According to the minutes and in some cases recordings, there were several accomplishments in each category, as summarized in Table 6.

Table 6: Tutors of Color Actions

Outreach	Hiring	Faculty/Staff & Student Communication	Job Security & Flexibility

Intentional bilingual advertising campaign with images of tutors of color.	Simplified application process, uniform across all Success Centers.	Common email scripts and "Become a Tutor" presentations for tutor recruitment highlighting the need for Success Centers to reflect the diversity of the student population.	Conversations about hiring students who only had a few hours to work or many interruptions in their schedule vs those who could do large blocks of time. The idea was that students with barriers would not be hired, since it was easier to hire those who had the luxury of flexibility.
Intentional contact with empowerment programs to recruit students from their programs and supply tutors to empowerment programs from the Success Centers.	Faculty approval (as mandated under Title V and the college's College Reading & Learning Association training program) rather than a more formal recommendation.	"Become a Tutor" presentations emphasize what is expected of a tutor. Key ideas include that tutors are not expected to know everything and that struggles are valuable assets they may pass to future tutees.	
Increased coordination between Success Centers on tabling at events.		Starfish (communication platform) referral to become a tutor created for faculty to more easily identify students in their classes that they believe should apply to be a tutor. Also works as faculty approval for application.	

Despite the changes, the Tutors of Color group reported in the spring of 2022 that the proportion of Black and Latine students who worked at the Success Centers declined. The percentage of Black tutors went from 4% to 1.59%, and the percentage of Latine tutors went from 28% to 26.2%.

According to a presentation given on the Tutors of Color initiative, the decline did not warrant the dissolution of the program. The presentation stated that such work is not for short-term gains but is a long-term commitment that takes time. Yet the program did dissolve.

In the end, the initiative lost steam, and no record of future meetings was supplied. I followed up with a Success Center member who worked on the program. They indicated that some aspects of the initiative had become part of everyday use across the Success Centers, but other tools might or might not be used by some of the centers. They did not know what was happening with other centers—a lack of community relations between centers is a common theme, as discussed in the next section on redesign. According to the member, the primary reason the initiative stopped was changes in leadership, which left members unsure how to proceed.

Despite indications that participants knew common tools of improvement, they were largely absent in the next steps. For example, the team put measurable goals in place: that the percentage of Latine tutors would increase from 28% to 35% and the percentage of Black tutors would increase from 4% to 8%. Measurable goals are a key component in improvement science. However, researchers stress the significance of intermediate measures (Bryk & Yeager, 2013). Hinnant-Crawford (2020) provides several tools that could be used in intermediate measurement, such as run charts, and a description of measurements for accountability, for research, and for improvement. In MMC's case, only accountability measures were taken at the end of each semester, when it is too late to improve. Measurement was primarily a means of judgment rather than a tool for constructive feedback (Hinnant-Crawford, 2020).

An interesting technique attempted in the documentation was using diagrams that looked like driver diagrams. Below I give an example of a driver diagram from Hinnant-Crawford (2020).
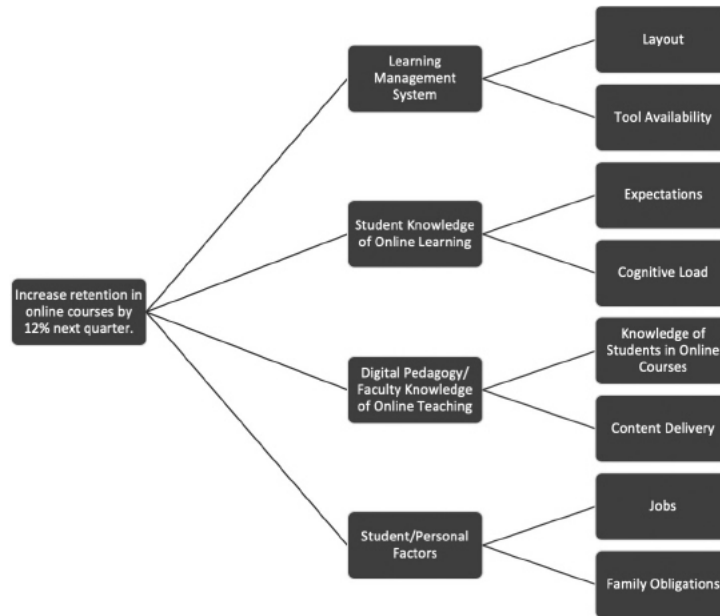
MMC gave several diagrams, each with its own subproblem, and the boxes did not always describe drivers but general categories or problem statements. Hinnant-Crawford (2020) describes drivers as elements in a system that can either drive or inhibit desired outcomes. Figure 13 displays a driver diagram from the Tutors of Color initiative. The first box does well by stating the problem which the drivers may act upon. However, the boxes connecting to the first box should contain nouns (i.e. people, places, activities, processes) that influence or can drive actions to address the problem. For example, instead of "find a simple, effective way to contact faculty" the box should read "faculty".

Figure 13: Driver Diagram from Tutors of Color
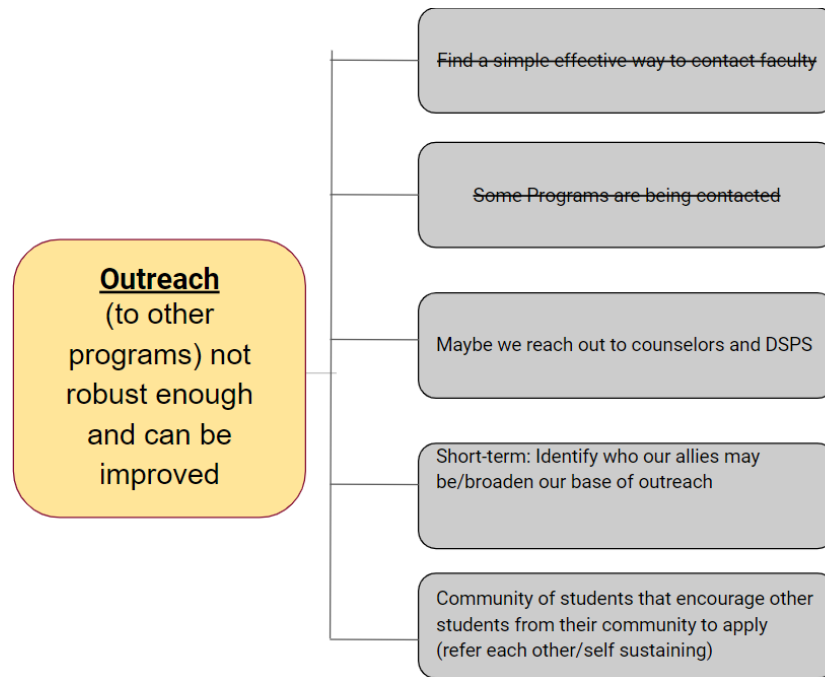
Lastly, the documentation did not reveal how the initiative was reassessed at the end of a cycle. Improvement science emphasizes the use of short test cycles which may be run using a PDSA cycle. Even with the use of improvement tools, the Tutors of Color initiative was not continually running small-scale tests nor regularly examining data over time. According to Hinnant-Crawford (2020), without these features the initiative was not using improvement science.

Finding 2: Use of Informal Practices to Engage with Students of Color

By the time of the interviews, the Tutors of Color initiative had ended, and so I received a picture of the engagement efforts after the Tutors of Color initiative. The interviewees raised the following central ideas: (a) building community, (b) tutor representation of students of color, (c) altering physical spaces to be more welcoming, and (d) outreach between centers and with students of color.

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Building Community. Rather than provide a list of concrete practices, most interviewees described building a community as way of feeling at home or of feeling safe:

> [Success Centers are] not only [for] ... tutoring, but I mean, trying to create a little sense of community for [students], because I know how important a tutoring center was when I was in community college. And it was just like a home base for me. Yeah, I got tutoring there. But it's also where I made friends and made deep connections.

Some participants did mention small actions that help to create a sense of community. Success Center team members should smile, say "Hello," and be willing to help or talk about more than academic subjects: "Students generally like the relaxed atmosphere and are willing to talk to and help out students with more than just the subject matter, but [we] genuinely care about our students."

Tutor Representation. The topic of hiring tutors of color inside the center was regularly mentioned in the interviews. Some participants mentioned their belief that hiring tutors of color would make their centers more welcoming to a diverse group of students: "I think [Success Centers] can play a role in creating spaces where students of color feel safe enough to reach out for support—whether that means more representation or perhaps more collaboration with the empowerment programs on campus." Four participants, a mixture of staff and faculty, expanded on attempts to implement formal practices to hire more tutors of color, with one saying,

> I did an experiment … years ago where I added a student of color and a female … All of a sudden, females felt comfortable. They were showing up to get tutored. We had students of color showing up. I think when you have an opportunity to support the demographics that we're trying to support, to close those gaps, that's when we'll have more success. When you see somebody that looks like you, it's easier to be comfortable, to be very honest,

students of color, particularly Black students, are not so comfortable with asking for help, because when we, we feel that when we ask for help, that's showing a weakness within ourselves, which is the absolute opposite.

While some interviewees described efforts to hire Latine and Black tutors, some expressed a lack of a sustained coordinated effort:

We have tried promotions with our tutors of color at the forefront (in videos and flyers). We've hosted workshops on different cultures/backgrounds involved in [our subject]. We do our best to train our tutors to be equitable and culturally inclusive. I think most of our practices are informal or implicit and not very formal/explicit. Other than our initial review of our hiring practices [as done in Tutors of Color] in trying to get more representation in the center [we have not done anything formal].

In some cases, participants felt there had never been an intentional effort: "Quite honestly, we have not had any campaigns that target students of color intentionally."

The mixed results speak to challenges with awareness and motivation that Miller and Harrington (2023) refer to. Some of the participants felt initiative fatigue from continually participating in efforts to engage students of color, whereas others were frustrated with a lack of sustained effort.

Altering Physical Spaces. Two participants spent time detailing the physical space of centers as significant in creating a welcoming environment:

One of the things I did was tell the students, you know, this is your space. If you don't like the configuration of it, please let me know how you can change it, because I feel my role is to oversee the space, but it belongs to them.

In this space, the students created a tree using butcher paper to represent the heritage months across the year. The coordinator in this space reflected on a saying they heard at a conference: "You can't just be a brown space; you have to have a brown space." They explained that the center could not expect to serve Latine and Black students without taking purposeful actions.

Another participant described comfortable seating, food, and decorations as important. Most significantly, they mentioned having student-created artwork that reflected diverse communities. They described two murals in which students either created the artwork or worked with the artist to create a meaningful piece of artwork.

Outreach Between Centers and With Black and Latine Students. Although most participants stated that they reached out to empowerment programs and tabled at campus events, nearly all of them felt their communication with students, faculty, staff, and programs was insufficient. The interviewees reported mixed success of communication between centers and empowerment programs. Some felt there was not enough collaboration:

> [Centers should] connect with programs that support our Black students. You know, we have with Ujima, we have a Black Student Success Center. But I feel like they're so disconnected from us. I feel like … communicating and collaborating with them more.

Centers that did connect with empowerment programs reported that the collaboration was not always effective:

> I do see that the Success Centers are trying to support students of color, mostly through empowerment programs. Through our support of programs like Puente, the Black Student Success Center, and other programs, we are directly supporting students by providing tutoring to these areas. However, from what I've heard anecdotally, students are not

utilizing tutoring services in the empowerment programs. This begs the question of how effective we actually are in supporting students of color.

Several participants voiced a need for greater communication between Success Centers to orchestrate a renewed initiative with students of color at the center. One participant alluded to past initiatives: "We could come together again and work on a plan. More multilingual flyers?" Others pointed to the limited contact the centers had with each other and a desire to at least brainstorm together:

> I think each of the centers are doing well as stand-alone centers. Other than the monthly meeting, we really don't have any communication with the other centers. I would like us all to work together, even if it's our own little think tank.

Given the lack of communication between centers, the individual centers reported on their own outreach efforts. Interviewees noted tabling at events, mass emails, and social media. Most centers had a presence on the institution's learning management system. On one center's learning management system, students could access handouts, videos, and self-paced modules to prepare for upcoming classes. Another center used the learning management system to enroll students for a monthly newsletter advertising events on campus related to their subject. The newsletter also included programming specific to students of color, such as Latine speakers and scholarships.

Many felt that students had not returned after the pandemic. One participant said that they could "remember when you couldn't get a seat in the … center. No matter when you walked in there, it was always seriously crowded … We got in trouble often for being over the fire marshal rules." Students not returning to campus aligns well with the findings of Miller and Harrington (2023). Their research described the pandemic as a major public health factor affecting internal

change. Their research indicated that the pandemic challenged not only the daily routines of institutions, but also individuals, families, and communities.

Success Center Redesign and Its Effect on Engagement of Black and Latine Students

The previous section gave a glimpse into the practices that Success Centers have used to engage with Black and Latine students. This section provides context describing how the Success Centers were formed and explores the intent of that formation. I highlight the vision of the Success Centers according to administrators, staff, and faculty. Then, I explore how participants felt the redesign affected their engagement with students of color and why.

A Vision from Administration and Artifacts

A story can be constructed based on interviews with administrators and artifacts that begins with a FYE program that connects to GP and the Success Centers. Ultimately, the Success Centers were meant to be the physical embodiment of the Career Communities—a hall for each house. The sequence below shows how I came to understand the roadmap:

1. In 2011, a Title V grant funded the FYE program. The program was a success, starting with 320 students and growing to 1,882 by 2014.

2. By 2014, steps were being taken to expand FYE into a second year and third-year program.

3. By 2017, Guided Pathways for Success began. This was an institutional transformation framework that developed six meta-majors (later dubbed Career Communities), program maps, and began presentations to campus groups.

4. In 2018, MMC received the California Community Colleges Guided Pathways Grant. A GP leadership team completed the required self-assessment and 5-year plan for funding. The 5-year plan mentions Succes Centers twice. Under the heading "Improved Basic Skills,"

the document states that Success Centers have been created. Under "Proactive and Integrated Student Supports," the document states that Success Centers will be aligned with Career Communities.

5. By 2018, the Student Success Committee, co-led by Student Equity and Academic Senate personnel, was created.

6. In 2019, a draft of a document titled "Vision for Success Centers" described the creation of the Academic Success Center Redesign Committee (ASCRC), a subcommittee of the Student Success Committee. The ASCRC had been tasked with evaluating how best to address support needs for all students across all disciplines. Through the committee process, involving stakeholders across the institution, six principles emerged as central goals:

    a. All students should have access to the learning support they need.

    b. Success Centers should provide students with wrap-around services so that students do not need to traverse the college to find the appropriate support.

    c. Students should have a sense of place and belonging, interacting with a community aligned with their goals and selected GP in Success Centers.

    d. Unification of oversight and practice will better accommodate students and facilitate access.

    e. Institutional stakeholders need to be represented in the oversight of the Success Centers.

    f. Resource allocation for Success Centers should be sufficient to achieve the declared goals of the institution.

g. Planning processes regarding space allocation, organization, funding, training, staffing, and programming should be integrated into MMC's institutional planning processes.

One question was whether the administrators felt that the vision of the Success Centers had been achieved. The administrators felt more upbeat than the staff and faculty. Nevertheless, the consensus was that progress had been made, but more work needed to be done. The participants mentioned, for example, that wrap-around services were not fully implemented and unification across Success Centers had not been fully accomplished.

Documents and interviews suggested that the administration focused on components of contextual change such as structural, financial, and leadership challenges (Miller & Harrington, 2023). The artifacts described how the institution attempted to address the internal structural context with the creation of a new Student Success Committee with an ASCRC subgroup to evaluate and make recommendations for student support in the Success Centers. Both the interviewees and the artifacts consistently mentioned the necessity to include stakeholders from across the institution, in agreement that cross-institutional teams give the best chance to implement and sustain change (Miller & Harrington, 2023). The documents address financial necessities by specifically mentioning resource allocation and funding. Lastly, the documents and interviewees suggested opportunities for broader institutional leadership with the creation of the Student Success Committee and the ASCRC, as well as calling for additional staffing and training.

I did not learn about how the administration planned to address challenges in change management processes. Miller and Harrington (Miller & Harrington, 2023) and researchers in improvement science (Bryk & Yeager, 2013; Hinnant-Crawford, 2020) contend that leaders in

higher education often do not have the expertise in the methods to enact and maintain institutional change. This is not to say the institution did not address such challenges, but it was not found in any of the documentation examined for this paper except for the idea of training for staff.

A Vision from Faculty and Staff

Faculty and staff articulated a similar vision to that of administrators, and although they were more critical, they also felt that the Success Centers offered the potential to increase student success and belonging on campus. Faculty and staff gave three purposes for creating the Success Centers: (a) unification of processes, (b) building community across centers, and (c) creation of a "one-stop-shop" model for students. Staff primarily mentioned unifying processes and building community; faculty were the only ones to mention GP by name.

One faculty member summed up what most staff and faculty felt the vision of the Success Centers was:

> I know that [the administration] ... is trying to merge the Success Centers with the Career Communities. That is why each of the Success Centers has been rebranded to be in support of these various communities. I think, in theory, we want these places to be hubs for students who want to be in [a] community with those of similar majors or career paths. Because I am in the [center], I'm not sure how successful this rebranding and merging has gone.

Despite doubts about the redesign process, both faculty and staff saw the value in creating unified processes and creating a one-stop-shop for students: "I see the value in consistent spaces/procedures, at the same time recognizing that different spaces run, efficiently, differently. I believe that if a student knows what to expect, they are more likely to step up and use the resource."

Finding 3: Effect of Redesign on Engagement with Students of Color

I wanted to know whether the redesign had helped Success Centers engage with students of color, but the redesign had not yet unified processes, created communities across centers, or created a one-stop-shop for students to access resources. Thus, the answer to how the redesign had affected engagement with students of color was that it had not—yet. The interviews indicated various reasons: missing engagement with stakeholders from the centers, unclear roles for participants in the redesign effort, a lack of leadership consistency, and a lack of community between centers. Nevertheless, most participants felt gains had been made, though they were slow and incomplete.

Missing Stakeholders. Staff sometimes mentioned feeling ignored. They gave descriptions of the centers they once called home being turned upside down: furniture given away on a first come, first served basis; tutor-created resources thrown out; and well-established programs put aside for new ideas. "The changes were like getting a slap in the face," reported one participant; "it was heartbreaking," said another. Quite simply, staff wanted to be asked for input, informed why changes were occurring, and given plenty of notice to prepare for changes. A few noted that communication did not even need to be formal, just honest: "I really wish we had that, you know, communication, heart-to-heart communication, not necessarily have the official meetings but heart-to-heart communication."

Although planning and administration had indicated the significance of broad stakeholder involvement, staff and faculty did not feel meaningful involvement. The interviews corroborated Miller and Harrington's (2023) finding that, by the time faculty and staff are included in the conversation, the focus is on buy-in rather than real collaboration.

Unclear Roles. Unclear roles appeared frequently as a barrier to the organization process. One participant touched on the reality of everyday work when not knowing exactly what was expected:

> If we had closer supervision and a clear vision of where we wanted to take the [center, then I would have a better idea on my role]. I feel these days I am just trying to keep my head above water, unsure of what my role is even supposed to look like within the Success Centers.

Harrington and Miller (2023) found that many staff and faculty were not aware of efforts to enact large institutional change, might have heard of changes but did not fully understand why the changes were needed, or might not have understood their role in enacting the change. In the case of MMC, the faculty all mentioned GP by name. This knowledge may indicate a higher percentage of awareness of GP than other campuses, as one study reported 45% of faculty being aware of the GP (Center for Community College Students Engagement, 2020). Yet both faculty and staff expressed being unsure about the expectations of the changes occurring.

The quotation above also supports Miller and Harrington's (2023) assertion that faculty and staff already feel busy, so asking for additional involvement may be placing another burden on them. As the participant noted, they were trying to "keep their head above water"; others mentioned how much work they already do for students and that they did not see why the change had to be made. Thus, the participants corroborated the motivation challenges described by Miller and Harrington (2023).

Inconsistent Leadership. Changes in leadership were often mentioned as a barrier to consistency and direction. The documents showed that, as of 2018, there was an associate dean of

learning resources. By 2019, there was an associate dean of learning resources and a dean of academic affairs who oversaw the Success Centers. By January 2022, both individuals had left the college. As shown in the following quotation, leadership issues crossed over with feeling unheard and the lack of understanding roles:

> We had so many managers throughout the transition that we ourselves were confused. We were, like, "Okay, what do you expect from us? This is what we're doing. If you're not happy [with] what we're doing, what do you expect from us?" And the … transparency part of it, like not including us in the decision-making [showed a lack of transparency].

Nearly all participants felt that the lack of consistent leadership might have been the main reason the Success Center redesign had not yet been successful. The quotation below echoes the sentiment of inconsistent leadership and criticized MMC for placing the Success Centers under leader who already had a large workload:

> Uniting the Success Centers under one division seems to have been more of a detriment than a positive. This is because of the leadership. I like [our leader] and find [them] to be a supportive manager who is open to changes. [But they are] overworked and overburdened at this college. As such, [they have] little attention to give the Success Center programs. Without clear leadership and vision, it has been a struggle to feel at all connected as a division or understand what our vision is.

Participants felt that the leadership affected their intentional engagement with students of color. The previous dean of academic affairs was key to the Tutors of Color program, and some interviewees indicated that they were heading in the right direction by engaging with students of

color intentionally. Although some indicated that the new dean would completely support actions to target students of color, they felt that another formal push would have to begin from the top.

Miller and Harrington (2023) focused on the success that reforms gained from embracing forms of shared leadership that involved a broader spectrum of stakeholders (I noted earlier how left out many of the participants felt). As indicated in the previous quotation, however, MMC staff felt that they needed an increase in top-down leadership, since they were not included in the initial stages of the redesign. Part of this feeling came from the constant changes in leadership. As Miller and Harrington indicated, such changes may cause a loss of momentum. Loss of momentum was clearly felt with the fading of the Tutors of Color initiative and the Success Center redesign.

Lack of Community. At the time of the interviews, most staff and faculty did not feel that the Success Center redesign had increased their sense of community across centers: "In terms of community, I do not feel I have strong community with the other Success Centers"; "I'm sorry, I don't think they are better, just changed. We still work in silos instead of a group." Moreover, two participants mentioned ongoing Success Center retreats that have been held to unify processes and foster community. Both felt that the retreats were not enough yet to bridge the current informal practices and culture that already existed. Structural challenges that include informal practices and culture have been a noted challenge to GP efforts.

Finding 4: Faculty and Staff's Views of the Future

Despite shortcomings, most faculty and staff said that they believed that the redesign may ultimately lead to positive changes for the Success Centers and students. Some faculty and staff mentioned that they appreciated the trust that the leadership had in them and the ability to try things out:

Not all managers are equal in what they let their employees do. As long as I get my job

done, nobody questions it. I get total support … I've been probably the luckiest person on

this campus. I had deans who believed in me and gave me opportunities.

Some of the same staff and faculty who noted a lack of community felt that, though it had been slow, they were beginning to feel more connected across centers. The following quotation illustrates the feeling of improvement while indicating that involvement helped bring about that feeling: "I got more involved and with events that we have planned for Career Communities and with my team like the Success Center team. So, I got more into it. And then the transition got a little better and smoother."

At the time of this study, the Success Centers at MMC had only been established for 3 years (currently in the fourth year). An associate dean and a dean left during the process of creation. They have faced remote work due to the COVID-19 pandemic, which Miller and Harrington describe as another contextual challenge. New leadership continues to move forward, and some participants reported that they were beginning to feel more included. As predicted by the literature, it may be that, with continued, consistent leadership and stakeholder involvement, the motivational challenges and contextual challenges at MMC can be overcome.

Summary of Findings

Four central findings emerged from the interviews and document analysis. First, MMC engaged with students of color with a formal initiative called Tutors of Color. The initiative used some aspects of improvement science, but it was inadequate according to the improvement science literature and eventually faded. Second, MMC currently uses informal practices to engage with students of color. Practices center around building community, tutor representation of students of

color, altering physical spaces, and outreach between centers and with students of color. All centers felt that more needed to be done in each of these areas. Third, the redesign has not affected engagement with Black and Latine students. Participants indicated that challenges such as missing stakeholders, unclear roles, inconsistent leadership, and a lack of community between centers overshadowed work to engage Black and Latine students. Lastly, many MMC faculty and staff feel that the redesign may still have positive impacts. As leadership solidifies, roles become clearer, and further opportunities for community building continue, positive impacts on Black and Latine students may result.

CHAPTER 5: DISCUSSION AND RECOMMENDATIONS

Introduction

A great idea is only as good as its implementation and sustenance. Steamboat Willy became an instant success as the first cartoon with synchronized music and sound effects in 1928 (Suddath, 2008). However, Mickey may have just become a passing fad if it were not for Walt's true genius in marketing and Roy Disney's fiscal oversight. Marketing and accounting don't sound like Disney magic but made it possible for the company to do its magic. In the same vein, this dissertation focuses on the less magical aspects of reform. The purpose of this dissertation was not to provide a list of ideas for institutions to apply to their LACs and end up with welcoming spaces for Black and Latine students. Doing so would not have worked well – just as I would not become the next Walt Disney by making a cartoon about a Mouse. LACs can borrow specific ideas and replicate them, but in my experience most institutions already have enough ideas. Institutions must learn how to operationalize ideas and build a community around a shared vision. To obtain that vision,

there should be a focus on processes and measurement with strong leadership that embraces empowering others but willing to take charge when needed.

In this chapter I will go through six sections. First, I begin with a discussion of my findings to establish MMC stakeholders' belief in culturally affirming work and lead into their ultimate failure to operationalize equity. Next, I will describe the significance of the dissertation in a time where both equity and GP are at the top of institution's minds, and how the case study provides a new context to these topics. Then, I give implications for institutions/high-level leadership, mid-level leadership, and practitioners. Implications lead to limitations of the research and provide opportunities for future research. Lastly, I present three recommendations and provide a personal reflection on the work.

Discussion

Stakeholders at MMC Believed in Culturally Affirming Work

Finding one, that MMC created a formal initiative to center Black and Latine students, and finding two, that MMC Success Centers use informal processes to engage with Black and Latine students both support that Success Center stakeholders believed in culturally affirming work. This is not to claim that all stakeholders at MMC are familiar with the theories put forth as culturally affirming in the literature review. The Tutors of Color program and interviews do suggest those involved desired to provide an environment for Black and Latine students to feel welcomed.

Tutors of Color did several things that purposefully touted the belief to create spaces for Black and Latine students. The slides at the opening retreat quoted literature on belonging in higher education. Black and Latine student voices on the opening panel were meant to inform faculty and staff. This displayed value for student cultural capital. The goals and actions the

initiative took continually messaged that the Success Centers wanted Latine and Black students in their spaces. "Participe en nuetra comunidad de apoyo!" read the flyers.

Despite the failing of Tutors of Color, informal practices to engage with Black and Latine students continued. Not one staff or faculty member indicated that they should *not* be purposefully engaging with students of color. All staff and faculty stated that they understood the importance of their spaces for all students, but especially for Black and Latine students who have been traditionally marginalized. One participant summed up their belief that a center could not expect to create a space for Black and Latine students without doing so purposefully by saying, "you can't just be a brown space; you have to have a brown space."

Miller and Harrington (2023) found that some faculty and staff may not believe in the why behind a change, but that did not occur at MMC. Participants believed in the Tutors of Color initiative to center Black and Latine students and, yet it failed.

Operationalizing Equity

In my experience working with faculty and staff on reform efforts, many are called to the work because of their belief in equity work. Yet, as Hinnant-Crawford (2020) notes, we are facing the same challenges in education as we did 20 years ago. This dissertation gives one example of why. The institution could not take equity as an idea and operationalize it into an action. Themes of vision, measurement, and resources continually arise. Leadership, as Miller and Harrington (2023) found, plays a key role in each theme.

Vision. Much of the research indicates that successful change initiatives require a shared vision with the support of multi-tiered leadership (Miller & Harrington, 2023; Hinnant-Crawford, 2020). MMC staff and faculty gave a similar vision to administration on what Success Centers

should be. However, all interviews gave a broad description using terms like "hub" or "one-stop-shop". Documents uncovered more detailed plans to include success teams within those spaces consisting of success coaches, counselors, and faculty. Activities the success teams would coordinate include counseling and coaching appointments, workshops, supervised study groups, and supplemental instructional sessions. If participants knew of such details, they did not know their role in that vision and were looking for someone to tell them.

The vision for the Tutors of Color initiative was missing a theory of improvement. A theory of improvement includes a theory of change (the "why" a change needs to occur) and a theory of action (the "how" a change will be done). The theory of improvement takes the "why" and "how" and contextualizes them into the system that is producing the problem (Hinnant-Crawford, 2020). Looking at the Tutors of Color initiative, why the tutor demographics should match that of the institution were hinted at but never explicitly made. Furthermore, based upon the retreat and interviews, findings pointed at a larger goal of making Black and Latine students feel more welcomed.

Measurement. Operational definitions serve as a key component to improvement science (Hinnant-Crawford, 2020; Bryk, 2015). Deming (2000) defines an operational definition as an agreed upon procedure to translate a concept into something that can be measured. This study looked at how Success Centers engage with students of color according to stakeholders within the centers, and if the redesign had any impact on that engagement. Regarding measurement two issues occurred: (a) What measurements of engagement with Black and Latine students should be collected? And (b) what measurements could be taken to assess the redesign effort?

Tutors of Color offered one measurement on engagement with Latine and black students. The initiative sought to increase the number of Latine tutors from 28% to 35% and black tutors from 4% to 8% by the following year. Two issues arise, there were no intermediate practical measures. Second, I question if this measurement measured what MMC wanted to improve. Again, did MMC want demographics to match, or did they want belonging for Black and Latine students?

Improvement science would call looking at the percent change of tutor demographics at the end of each semester an accountability or lagging measure. Accountability measures do offer accountability regarding where the reform is after the end of some natural cycle. However, if used on its own, which Tutors of Color did, accountability measures come too late to make improvements. Improvement science dictates that reform requires practical measurements that may be broken down into four questions: (a) Did it work? (b) Is it working? (c) How is it working? And (d) Is it working as intended? (Hinnant-Crawford, 2020). Tutors of Color only asked, "Did it work?" Furthermore, what exactly did the Success Centers hope to achieve with Tutors of Color beyond matching demographics.

What the leaders of Tutors of Color could have done differently depends upon clarifying their theory of improvement – their belief on why and how the change is supposed to work dependent on the understanding of how their organization works. For example, if the problem is Black and Latine students don't feel welcome at Success Centers, their belief is: if tutor demographics match the student population, then students will feel that they belong. Next, drivers may be identified to reach their goal along with practical measurements.

Drivers for the Tutors of Color initiative include faculty, coordinators, students, and technology. Instead of pushing all these drivers at once the team may decide to focus on one

intervention. For example, the initiative created an email template to be sent to faculty encouraging them to refer diverse students. At this point a PDSA cycle could be initiated in which practical measurements can be employed.

Beyond accountability measure, Tutors of Color should have also created driver measures and process measures. A driver measure may include to ask faculty about their familiarity with the new email template. If they find faculty did not read it, then the driver measure indicates that the intervention is not working. A process measure may be asking coordinators if, and when they sent the email. Answers to such questions will provide a valuable measurement on how the plan is working. By the time the accountability measure is taken participants may already have a good idea of what the results of the accountability measure may be.

Attack, adopt, abandon cycle. The formal Tutors of Color initiative fell apart, and informal processes took their place. MMC followed the process Rohanna (2017) called the "adopt, attack, abandon cycle." Although this may not be what Diamond and Gomez (2023) meant when explaining organizational routines, the adopt, attack, abandon cycle had taken over the formal process to engage with students of color at MMC. Without what Diamond and Gomez (2023) call an endogenous shock (a shock from within the organization) MMC may be destined to continue a routine of adopt, attack, abandon harming true progress toward racial equity.

Leadership. Ultimately, this case study echoes the significance of strong leadership on change processes (Miller & Harrington, 2023; Hinnant-Crawford, 2020; Bryk et al., 2015). An important note is that the case study provides a snapshot in time of an ongoing process. MMC has suffered from changes in leadership, former top-down leadership, and a period of slow reconstruction.

MMC Success Centers experienced a roller coaster of leadership alterations. Leadership went from an associate dean to a new full dean position to oversee the associate dean. The associate dean left, and then the dean left. After about a year, the centers were placed under a dean who, according to some participants, MMC had already placed too much on. The repercussions had huge effects. Some individuals felt that some steps forward had been made under the old dean. Most felt that the new dean would support those efforts, but they would have to ensure those efforts continued. The new leader would need to learn the formal and informal culture, processes, and activities the Success Centers had developed, as well as deal with the lost feelings many reported.

A top-down leadership approach made learning about the formal and informal characteristics of the Success Centers difficult. As found by Miller and Harrington (2023), a top-down approach often results in a lack of awareness at the operational level since stakeholders were not brought in as part of the implementation process. Therefore, if the leader leaves, no one is left to follow through on the implementation or explain the why behind the changes in the first place.

As the study ended a new beginning was dawning for the Success Centers. At the time of the interview, a few participants mentioned a Success Center retreat. Although one interviewee stated it would take more than retreats to bring the centers together, most interviews gave an aura of optimism. All stated more work had to be done but that they were beginning to be more involved and feeling more connected. The retreats may be a way of starting over with a broader array of stakeholder involvement. Unfortunately, hitting reset on a game that started in 2019 when the Success Centers were officially created hurts. Not to mention battling challenges of initiative fatigue from the previous years. Miller and Harrington (2023), as well as improvement science, dictates that leadership should take time to acknowledge the cultural histories of the spaces before doing more reform.

Significance

Equity Work

Nearly all community colleges are seeking equitable outcomes for traditionally marginalized groups. Looking at the mission and value statements of 14 southern California Community Colleges in the Los Angeles area, only one did not specifically mention equity (see Appendix B). Practically, centering equitable outcomes for marginalized groups makes sense since California Community Colleges disproportionately serve Latine, Black, first generation, socioeconomically disadvantaged, and foster youth in the system of higher education (The Campaign for College Opportunity, 2021a, 2021b; Tomas Bustillos, 2017). Therefore, this dissertation comes when institutions and practitioners are all seeking to operationalize equity.

Guided Pathways

All 116 California Community colleges are implementing the Guided Pathways Framework (California Community College Chancellor's Office, 2017). As mentioned earlier in this dissertation, most research has targeted high level administration and counseling/intake processes (Bailey-Hofmann, 2019; Jenkins et al., 2019; Ashby, 2018). Additionally, literature has called for practices to put marginalized students at center focus of GP (T. Bailey, 2018; Cesar-Davis, 2020; M. Rose, 2016; S. Rose et al., 2019). This study may give the only example of leveraging learning assistance centers in the GP effort while focusing on serving Black and Latine students.

A Real Example for Improvement Science & Challenges Centering Equity

The dissertation corroborates much of the findings of Miller and Harrington (2023) as well as those of improvement science advocates (Bryk & Yeager, 2013; Hinnant-Crawford, 2020).

Most interesting, the case study gives an example of when change management challenges have not yet been overcome by an institution and improvement science is not fully utilized. Often, improvement science gives examples of interventions in which the practice has been utilized properly. Researchers hope to encourage the adoption of improvement science methodology with successful examples. The difficulty of adopting improvement science has not been properly acknowledged in literature.

Literature also lacks examples of improvement science as a tool for equity. Recent scholarship has called for the purposeful placement of anti-racist literature to form race-conscious methods of improvement (Diamond & Gomez, 2023; Irby et al., 2020). What this dissertation points out is that even when stakeholders are equity-minded, change processes are hard. In a time where institutions of higher education are quick to adopt anti-racist, equity-minded missions the routine of adopt, attack, abandon persists. Improvement science as a tool for equity may be an important viewpoint to move theory that already exists into institutional actions.

Implications

Institution/High Level Leadership

The case study illustrates how decisions made at upper levels of an institution may break down at the level of implementation. This implication corroborates Miller and Harrington's (2023) findings well on challenges institutions will face if they do not support change management processes adequately. The work also exemplifies the different concerns higher level managers may have than practitioners on the ground. Higher level leaders regularly keep up on new initiatives and theories, whereas managers may be thinking of completing a tutoring schedule on budget. More attention should be given to processes from top to bottom.

As previously stated, improvement science as a tool for equity may play a significant role for institutions to operationalize the equity minded missions they espouse. Spending money on another cycle of abandonment has not worked and each failure costs more underserved students opportunities at success.

Mid-Level Leadership

Mid-level leadership will often be tasked at leading the different components of large reform efforts such as Guided Pathways. The case presented shows that leaders should not blindly enter the complex maze of higher education systems without a well formulated cycle of improvement. Even when participants are committed to equity, as with MMC, it did not mean they understood and bought into how it was being operationalized and what their role would be. Leadership must also acknowledge the history of the space they are working with. Redesign is not the correct word for enacting reform – leaders hope to nurture and grow.

Leaders should also broaden their scope of leadership to include more stakeholders. First, including more participants increases awareness and buy-in. Second, if a leader leaves the organization the work is more likely to be sustained. Even if stakeholders all seem to understand why a change should occur it does not mean that all stakeholders understand their role. Mid-level leaders may ask themselves what would happen to their efforts if they left the institution tomorrow.

Practitioners

Practitioners may take this case study as a sign to learn more about studying change management processes such as improvement science. Improvement science researchers continually claim that higher education provides countless ideas without the ability to properly implement and sustain those ideas. As a result, ideas fail and are replaced by another idea. The

result may be initiative fatigue (Miller and Harrington, 2023). Participants can strive to learn more about the 'how' to create change than concentrating on 'what' change to make. In a large institution, practitioners should spend considerable time thinking about the entire system they work within. For example, many of the issues at MMC revolved around communication. Communication is complicated because it involves how everyone communicates across divisions, offices, and individual people.

Limitations and Future Research

The dissertation does not define successful engagement with Black and Latine students nor does it attempt to measure engagement with Black and Latine students. The research questions depend upon the voices of the participants and the artifacts (documents, videos, flyers, physical spaces) shared by them. Future research that brings in a broader array of stakeholders and analyzes quantitative data would complement this dissertation's work.

Student voices were not brought into this study. The research questions sought to know the experiences of faculty and staff that work in the centers. A great next step would be to compare the experiences of the success center practitioners with those of the Black and Latine students visiting the center. In addition, student involvement or lack of involvement in the implementation process may add another element to bolster the case for more work on developing change management process skills.

This case study did not attempt quantitative analysis of Success Center data. Such data for Black and Latine students would add another element of engagement. A researcher could attempt to operationalize success with common metrics like retention or passing classes. Only percentages of the usage by Black and Latine students of MMC Success Centers were looked at to determine

what participants to begin interviewing (as described in chapter 3). Looking at various data over time could give insight into what effect the Success Center redesign had on engagement with Black and Latine students. For example, number of visits, number of hours visited, success in courses tutored, and retention in courses tutored.

As with any case study, the story is unique and external validation/generalizability may be limited. The case took place at an urban community college in the Los Angeles area that is designated an HSI. Only two community colleges in the surrounding area are implementing GP using Success Centers designated to meta-majors. Despite this unique example, the general issue of education being ripe with solutions but struggling with implementation rings true across the entire higher education sector.

Future Research

The limitations of the study naturally lead to ideas for future research. Studies that attempt to measure engagement in different ways than the perspectives of staff and faculty inside Success Centers will supplement this dissertation. Asking Black and Latine students about their experiences with the Success Centers during the redesign can be compared to those of the staff and faculty. Quantitative data tracking usage of the centers from before the redesign until the current time can provide context on who has been using the centers. Lastly, qualitative, and quantitative measures can be studied to connect the engagement of Students of Color to a success metrics. Those metrics may be the traditional ones – success in classes and retention- or they can be new constructs that attempt to measure other funds of knowledge.

More broadly, examples in improvement science as a tool for equity should be done. Successful partnerships that combine expertise in improvement science and critical theories that

examine structural inequities with practitioners on the ground should be documented. Unsuccessful stories of improvement should also be done to teach lessons on potential challenges that may occur during cyclical improvement.

Recommendations

Recommendation 1: Invest in improvement science professional development and resources.

Institutions should offer regular opportunities for professional development in improvement science at all levels. By doing so many of the contextual and awareness challenges noted by Miller and Harrington (2023) can be overcome. More stakeholders will have knowledge of how change activities occur, will help lead and sustain change activities, and understand change as a long-term process.

As we found in the case study, having been exposed to improvement science does not necessarily mean that someone is ready to lead change. The college may need to identify individuals who have had practice in improvement science to develop Networked Improvement Communities (NICs) when a change effort arises. The individual can help develop shared language, measurements, and processes to be shared across the community. Outside coaches may be hired for this work. Coaching, rather than consultation, acknowledges that the change efforts lie with the stakeholders themselves and so enables them to start and sustain change (Boerner, 2016; Bragg et al., 2019; McClenney, 2019). Partnerships with university researchers may be more preferred. Universities have access to professional expertise and student scholars who provide valuable insight and will step into future leadership positions.

Along with more attention to improvement science methodology, the significance of a culturally affirming framework should be tethered to the methodology. One reason improvement science is often thought of as White, linear, positivist thinking may be the absence of purposefully including a culturally sustaining framework.

Recommendation 2: Combine vertical and shared leadership.

The literature and findings of this case study both point to the significance of leadership. First, participants felt a heavy hand of vertical leadership pushing them without understanding why they were doing things or feeling included in any changes. As a result, when the strong vertical leader left, many felt even more confused about what they should be doing without that leadership. Participants desired leadership that did both – provide top-down direction but include their input and give them autonomy. Part of shared leadership includes creating a theory of improvement addressing the "why" and "how" of a change considering the system the change exists in. Although reform may be necessary, the leader along with stakeholders takes into consideration what existed and fosters new growth.

Recommendation 3: Have Heart to Heart Discussions.

Documents and participants indicated that meetings across Success Centers occur regularly but are not enough. Several interviewees noted that they would have liked to have more informal discussions on the Success Centers with leadership and other faculty and staff. Miller and Harrington (2023) recommend communicating change efforts regularly and celebrating short-term successes. However, they do not indicate how this should be done. In my experience as a practitioner, a formal setting is usually used to discuss reform efforts. This study indicates that more effort should be made to ensure time is taken for smaller, less formal conversations.

Reflection

I understand it may seem unnatural to build a dissertation centered around Black and Latine student engagement on a framework of navigating change efforts. Yet, it dawned on me that failing to build equity efforts on a framework of navigating reform is one reason why education has made such slow progress on equity. At the very least, I invite any practitioner reading this to think of all the initiatives they have ever been a part of and ask themselves if it worked. In my experience it usually has not worked, or, at best, worked but not to the degree hoped for. So why not give something else a try? We owe it to our most marginalized students to figure it out.

I know it's exciting to think of solutions. Educators are passionate individuals who have a ton of great ideas. Improvement science has its roots in the mundane, cold world of business. I push back on the charge that improvement science is a linear, positivist, White Man's way of thinking (Hinnant-Crawford, 2020). As Hinnant-Crawford (2020) articulates, I too believe communities of color have always operated through processes of calculated improvement. In addition, I have always admired those that took their passion to learn the tools valued by dominant groups and used them to empower themself. As a trained mathematician, I admired how Christine Darden, one of the NASA female computers from the 1960s, used statistics to show that women were not being promoted at the same rate as White men. At the same time, modern statistics were developed and promoted by famous eugenicists such as Karl Pearson and Ronald Fischer who both held racist views regarding Black individuals, Native Americans, and others (Evans, 2020; Pearson, 1905). Although Darden should not have needed to go through such lengths to prove she deserved a promotion, our most exciting outcomes sometimes come from mundane work. We can do both the exciting and the mundane.

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I feel nearly certain that Guided Pathways will eventually be replaced or added to by another initiative. I don't see anything wrong with building upon initiatives of the past, as that is the nature of improvement. However, I feel pessimistic that it will not do much to increase success or close equity gaps because the CCCCO is not providing enough support on change management for equity. I am not advocating for the CCCO to give explicit instructions on what to do, but to provide more support than a regional GP coordinator and encourage culturally sustaining frameworks. This is why I recommend institutions develop strong relationships between institutions and researchers or coaches who understand how to enact change through an equity lens.

If we want to achieve more equitable outcomes, we must do the boring stuff. We need to spend time thinking about the "how" rather than the "what". At the same time, we cannot lose sight of the "why". Being uncomfortable addressing equity for the underserved allows routines of oppression to flourish under the guise of improvement.

APPENDICES

APPENDIX A: DEFINITIONS

- General Center Model: A single center that offers services for multiple subjects.
- General Center with Satellites Model: A single center that offers services for multiple subjects along with designated satellite centers for high demand areas such as math/STEM and/or writing/reading.
- General Center with Sub-Centers Model: A single center that offers services for multiple subjects and within the center there are specified areas for high demand subjects.
- Subject-Specific Center Model: No general tutoring center but several different centers for specific subjects across the campus(es).
- Meta-Major/Success Center Model: Like the subject-specific model, the centers are spread across campus(es) but each center is dedicated to one of the college's meta-majors rather than a subject.

APPENDIX B: TABLE ON SURROUNDING COMMUNITY COLLEGE LAC

MODEL, AND EQUITY & INCLUSION STATEMENT

Community College	Learning Assistance Centers	Model	Equity & Inclusion Statement
Los Angeles City College	- STEM Learning Center: Science and STEM path math courses - Pi-Shop Tutoring Center- All Math - Writing Support Center- general writing/reading tutoring - General Tutoring Center - ESL	- General Center with Satellites	Yes
East Los Angeles College	- Language Lab: ESL services - Learning Center: General tutoring - Math Lab: All math tutoring - Reading/Writing Center: General writing/reading tutoring	- General center with Satellite	Yes

	- STEM/MESA Center: Tutoring for STEM courses, open to all ELAC students		
Los Angeles Harbor College	- Learning Resource Center (LRC) Central hub with labs: • Math lab • Writing Lab • Literacy Center • Subject Specific Tutoring	- General Center with sub-centers	Yes
Los Angeles Mission College	- Learning Resource Center (LRC) Central hub with sub-centers: • Writing Center • Math Center (has an additional location) • Science Center (not located within LRC)	- General Center with sub-centers	Yes
Los Angeles Pierce College	- Center for Academic Success (CAS) Central hub for all subjects • Writing lab inside CAS	- General Center with sub-centers	Yes
Los Angeles Southwest College	- Student Success Center (SSC) Central hub for all subjects - Math Lab: All math tutoring	- General Center with Satellites	Yes
Los Angeles Trade Tech College	- Student Support Center Central hub for all subjects • Includes counseling	- General Center with sub-centers	No

Los Angeles Valley College	- Academic Resource Center (ARC) Central tutoring hub sub-centers: - General Tutoring - Math Lab - Writing center	- General center with high demand offshoots	Yes
West Los Angeles College	- Learning Center Central tutoring hub	- General center	Yes
Santa Monica College	- Business Tutoring - CSIS Tutoring - ESL Tutoring - Math Tutoring - Modern Language Tutoring - Music Tutoring - Science Tutoring - STEM Tutoring - Writing & Humanities Tutoring - Social Sciences Tutoring	- Separate centers spread across campus	Yes
Chaffey College	- Arts, Communication, and Design Success Center - Business, Technology, and Hospitality Success Center - Health, Wellness, and Athletics Success Center - Health, Wellness, and Athletics Success Center - Manufacturing, Industrial Design, and Transportation Success Center - Science, Technology, Engineering and Mathematics Success Center - Public Service, Culture, and Society Success Center	- Meta-Major /Success Center Model	Yes

Mt. San Antonio College	- Academic Support & Achievement Center (ASAC) - Speech and Sign Success Center - Tech Ed. Resource Center (TERC) - Writing Center - Language Learning Center (LLC) - Math Activities Resource Center and Support (MARCS) - STEM Center	- Subject-Specific Centers	Yes
Long Beach City College	- Multidisciplinary Success Center - Math Success Center - Writing/Reading Success Center	- General center with Satellites	Yes
Rio Hondo College	- Learning Assistance Center - Math Science Center - Writers' Resource Center	- General center with Satellites	Yes

APPENDIX C: INITIAL SCREENING EMAIL

Dear learning assistance colleagues,

Some of you may know me but for those who do not, my name is Julius Duthoy and I am part of the Success Centers here at PCC. However, I am writing to you today in the hope that you will support me in my research as a graduate student at UCLA.

For my dissertation I hope to spend more time with a sample of some of you who do the hard work in our success centers. I want to learn about how your center/program supports students of color and how the current design of our Success Centers affects the support for students of color, if at all.

The 8-question survey linked below will serve as a starting point to my research. I appreciate you taking the time to fill out the survey and I look forward to connecting with many of you soon. All participation is voluntary, and your identity will be kept confidential.

Survey link: https://uclaed.co1.qualtrics.com/jfe/form/SV_0NdXu91sq8huF82

For more information, the Study Information Sheet is attached.

If you have any questions, please feel free to contact me at jduthoy@g.ucla.edu or (562) 587-1803

or my faculty sponsor, Dr. Rios-Aguilar at rios-aguilar@gseis.ucla.edu.

Thank you,

Julius Duthoy

jduthoy@g.ucla.edu

562.587.1803

APPENDIX D: INITIAL SCREENING SURVEY

Intro: This 8-question survey initiates research on the experiences of learning assistant center professionals at PCC during the Success Center redesign and Guided Pathways implementation. Participation in this survey and subsequent research is voluntary and your identity will be kept confidential. All data will be secured on an external device and deleted upon completion of the study. I am very grateful for your willingness to participate.

Please enter your email (Personal or PCC):

_____

Check the ethnicities which best describe you:
- ○   Hispanic or Latino
- ○   White (Not Hispanic or Latino)

- Black or African American (Not Hispanic or Latino)
- Native Hawaiian or Other Pacific Islander (Not Hispanic or Latino)
- Asian (Not Hispanic or Latino)
- American Indian / Alaskan Native (Not Hispanic or Latino)
- Two or More Ethnicities (Not Hispanic or Latino)
- I prefer not to disclose

Check the gender identity/identities that best describe you:
- Male
- Female
- Non-binary / third gender
- Transgender Female
- Transgender Male
- Prefer not to say

Years Employed: How many years have you been employed at PCC?
- 0-2
- 3-6
- 7-10
- Over 10 years

What is the primary success center you are affiliated with?
- Liberal Arts Success Center
- Business & Industry Success Center
- Arts, Communication & Design Success Center
- Natural Science Success Center (STEM)
- Health and Wellness Success Center
- Social and Behavioral Sciences Success Center
- Writing Success Center
- Math Success Center (STEM)

What employment classification best describes you?
- Professional Expert
- PT Staff
- FT Staff
- PT Faculty
- FT Faculty
- Other

Title What is your job title?

_____

Please list any roles, committees, organizations, or any other groups/activities you are part of at PCC:

_____

_____

APPENDIX E: INTERVIEW PROTOCOL

Interview Protocol for Success Center Staff, Faculty, and Coordinators.

For the proposed study: Redesigning Success Centers

Introduction and Consent Language

I appreciate the time and effort you are willing to share in my research. This interview will collect data for my case study on how PCC Success Centers engage with students of color and how their recent redesign has affected that engagement, if at all. The information you share will not be reported in ways that identify you or other study participants. I will remove all participant names and identifying features (such as learning center name or location at the institution) from the dissertation document. In addition, any quotes used from our conversation will be assigned to a pseudonym. My research aims to share what has been attempted and learned from successes and failures in supporting students of color. The study does not depend upon the success or failure of any efforts being attempted at your college.

The interview should take approximately one hour. You are welcome to the snacks provided at the interview (if in-person). You have the choice to stop participating in the interview at any time and still receive the gift card. Our conversation will be audio recorded and a transcript will be constructed. I will be the only person who has access to both the recording and transcription. Are you comfortable with me recording our interview? [Pause for verbal consent]. Do you have any questions or concerns before we begin? [Pause for answer.]

Success Center Staff/Faculty Protocol

1. Tell me a little about your professional background and how you came to your current position.
   a. Probe: Why did you pursue this position?
2. Can you describe the process of re-organizing the learning assistance centers into the 6 Success Centers?

     a.   Probe: Were you given an explanation as to why the learning centers were being organized by career community? Who told you?

     b.   Probe: What were some of the challenges in the reorganization? Can you give examples? What aspects were successful? Leadership? Communication?

3. Personally, how do you feel about the reorganization?

     a.   Probe: Will it help PCC students? Why or why not? Can you give examples of why?

     b.   Probe: In what ways does the reorganization of success centers help students of color? Can you recall any examples of how they helped?

4. How do you perceive the role of the Success Centers at PCC?

5. Do the Success Centers play a role in students' career or academic pathway? How so?

6. Do the Success Centers play a role in students' retention and success? How so?

7. Do the Success Centers play a role in ensuring that learning is happening? How so?

8. How do you perceive the role of the Success Centers at PCC in supporting students of color?

9. Can you tell me about your success center? What services, activities, resources do your center offer students?

10. Can you walk me through the process to receive… [particular service]? Do you need to be a member? Sign-up?

11. How does your center get students of color to visit? How does your center get students of color to come back?

12. Are there any formal or informal practices, guidelines/training, or programming that promotes or affirms the culture of students of color?

13. Is there anything your center can do better to welcome students of color?

14. Is there anything the Success Centers can do to better welcome students of color?

15. Is there anything else you would like to add about how your center engages with students of color?

16. Is there another center or Success Center employee that you feel has valuable information to share about supporting students of color?

Administrative Leadership Protocol

1. Tell me a little about your professional background and how you came to your current position.

    a. Probe: How long have you held this position?

2. Can you tell me about the history of the Success Centers at PCC?

    a. Probe: What was the process of organizing/planning like? Who was in the room? How long did it take?

    b. Probe: What have been some successes with the Success Centers? Barriers?

3. How do you perceive the role of the Success Centers at PCC?

    a. Probe: Does the role of the Success Centers at PCC fit into the four pillars of GP? (1) Create clear pathways to employment and further education; (2) Help students choose and enter their pathway; (3) Help students stay on their path; (4) Ensure that learning is happening with intentional outcomes.

4. Is there a role you want the Success Centers to take in serving students of color?

    a. Probe: Any specific practices the Success Centers should follow to increase the participation of students of color?

5. What does the future hold for the Success Centers and how will they help students of color?

6. Is there anything you would like to add that I did not cover or that you would like to expand on?

Thank you for having this conversation with me, I deeply appreciate it. In the next few days, I will be transcribing the interview. Please let me know if you would like to review the recording transcript before [TBD]. To express my gratitude, please enjoy some of the refreshments before you go.

APPENDIX F: RECRUITMENT EMAIL UNIVERSITY OF CALIFORNIA LOS

ANGELES RECRUITMENT

LETTER EMAIL Subject: Research Participation Invitation – Interview of <Learning

assistance center faculty, staff, and coordinators> >

Good morning/afternoon,

Thank you for completing the previous survey for my research into the Success Centers at PCC.
As a reminder, if you do not know me, my name is Julius Duthoy and I am an Ed.D. candidate at
the University of California, Los Angeles (UCLA) as well as an employee here at PCC.

I am writing in the hopes that you will participate in my dissertation study, which concerns the
role of learning assistance centers in supporting students of color. With this dissertation, I hope to
provide practices that learning assistance centers at California community college campuses can
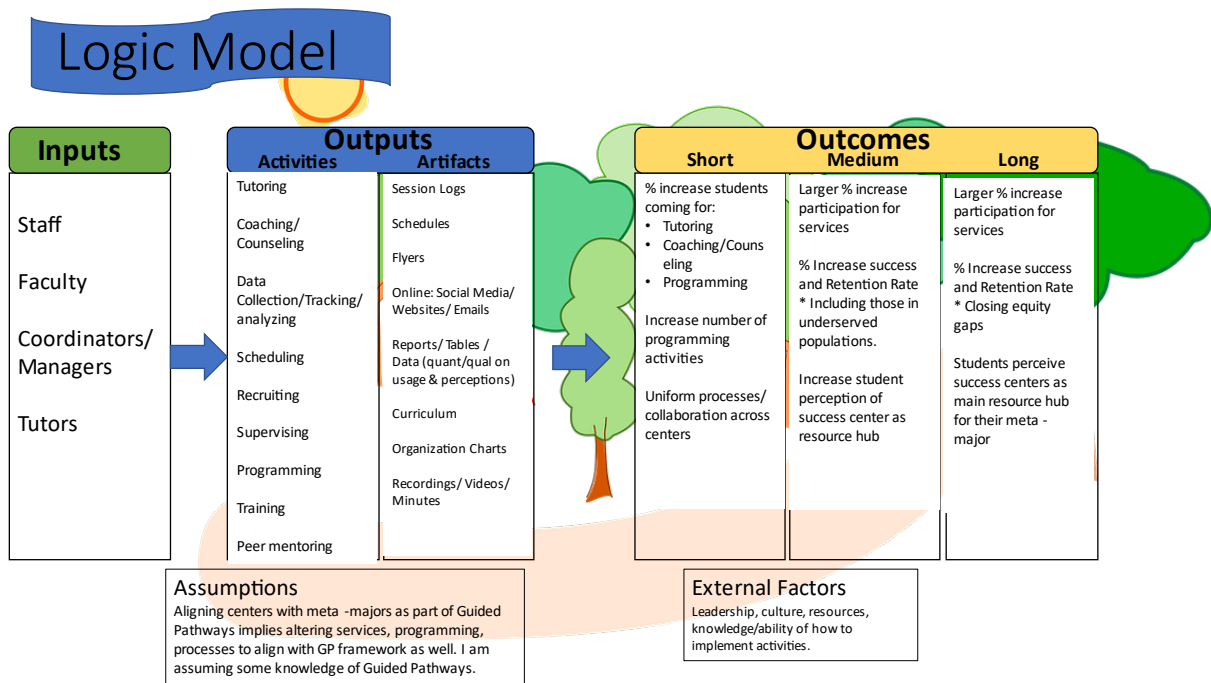implement to create a more welcoming environment for students of color.

I believe it is important to hear the voices of practitioners who work directly with students
whenever statewide or local changes are made at institutions. The range of involvement and
support that learning assistance plays in equity and initiatives varies greatly across campuses. I am
proud that the learning assistance community supports each other through shared learning
regularly and I hope to continue in that vein of practice.

Interviews will last approximately 60 minutes and will be held at a convenient time and location
(or via zoom). Information shared during the interview will not be shared in a way that identifies
you. Participation is voluntary. Refreshments will be provided for those who interview. If you are
interested in sharing your experiences for my study, please fill out the form here. (insert link to
form)

For more information, please click here to review the Study Information Sheet. (Link will be
provided.) If you have any questions, please feel free to contact me at jduthoy@g.ucla.edu or
(Phone number will be provided) or my faculty sponsor, Dr. Rios-Aguilar at rios-
aguilar@gseis.ucla.edu.

Thank you for your time in completing this survey and contributing to the study.

Appendix G: LOGIC MODEL

Logic Model

Inputs	Outputs		Outcomes		
	Activities	**Artifacts**	**Short**	**Medium**	**Long**
Staff	Tutoring	Session Logs	% increase students coming for: • Tutoring • Coaching/Counseling • Programming	Larger % increase participation for services	Larger % increase participation for services
Faculty	Coaching/Counseling	Schedules		% Increase success and Retention Rate * Including those in underserved populations.	% Increase success and Retention Rate * Closing equity gaps
Coordinators/Managers	Data Collection/Tracking/analyzing	Flyers	Increase number of programming activities		
Tutors	Scheduling	Online: Social Media/Websites/Emails			Students perceive success centers as main resource hub for their meta-major
	Recruiting	Reports/Tables/Data (quant/qual on usage & perceptions)	Uniform processes/collaboration across centers	Increase student perception of success center as resource hub	
	Supervising	Curriculum			
	Programming	Organization Charts			
	Training	Recordings/Videos/Minutes			
	Peer mentoring				

Assumptions
Aligning centers with meta-majors as part of Guided Pathways implies altering services, programming, processes to align with GP framework as well. I am assuming some knowledge of Guided Pathways.

External Factors
Leadership, culture, resources, knowledge/ability of how to implement activities.

APPENDIX H: PREDETERMINED CODE BOOK

Pre-Determined Code	Description
Guided Pathways	Statements or artifacts that name the Guided Pathways framework or may fall into one of the four pillars of GP (Choosing a path, entering a path, staying on a path, and ensure learning)
Latine/Black/Student of Color	Statements or artifacts that name or relate to Latine, Black, or students of color.
Redesign/Reform/Initiative	Statements or artifacts that name or relate to the Success Center redesign effort.
Belonging/Community	Statements or artifacts that relate to building community for students or between Success Centers.

APPENDIX I: ARTIFACT GUIDANCE FOR PARTICIPANTS

Good morning/afternoon,

Thank you all again for your help with my research into learning assistance centers. As part of my inquiry into the experience of the success center redesign and possible impacts of Guided Pathways, I hope to collect materials related to the success center redesign and/or Guided Pathways.

I realize that asking for you to take the time to collect materials for my use is a large task. My hope is that:

- Each of you take a few minutes to share 1-2 items (or as many as possible), collectively it will make a big impact for my data collection.
- Or, if you would like to give me access to a folder(s) where I may find such materials, or to simply drop a large number of files, I am happy to do the searching myself.

Again, you can expect these documents to be kept secure, your identification kept anonymous, and all data to be deleted upon completion of the study.

To help with the collection of materials the table below gives examples of what types of materials could be included, the topics of the materials, and a rough date range of when the materials were created.

Material Types	documents, flyers, meeting minutes, presentations, data (tutoring and services), social media posts, videos, schedules (i.e. workshop schedules, counselor/coach schedules), organization charts, blue prints/ , diagrams, emails notices, agendas,
Material Topics/Tags	Student success, student retention, Guided Pathways, Career, Career Communities, New Services, Success Center Redesign (location changes, staffing/leadership changes)
Date Range for Materials	Summer 2019 - Present

For more information, please click here to review the Study Information Sheet. (Link will be provided.) If you have any questions, please feel free to contact me at jduthoy@g.ucla.edu or

(Phone number will be provided) or my faculty sponsor, Dr. Rios-Aguilar at rios-aguilar@gseis.ucla.edu.

Thank you for your time,

Julius

APPENDIX J: STUDY INFORMATION SHEET

> **Delete** all **instructional text in blue and red**, and any sections of the consent template that are not applicable to your study. The font color of the finished consent document should be black. See the UCLA Consent Form Standards for more details

University of California, Los Angeles

RESEARCH INFORMATION SHEET

Redesigning Success Centers

INTRODUCTION

Julius Duthoy, Ed.D candidate and faculty sponsor, Dr. Rios-Aguilar from the [insert department affiliation] at the University of California, Los Angeles are conducting a research study. This study is part of the requirements for the completion of Doctor of Education for Julius Duthoy. You were selected as a possible participant in this study because *of your position at the learning assistance centers at your institution*. Your participation in this research study is voluntary.

WHAT SHOULD I KNOW ABOUT A RESEARCH STUDY?

- Someone will explain this research study to you.
- Whether or not you take part is up to you.
- You can choose not to take part.
- You can agree to take part and later change your mind.
- Your decision will not be held against you.
- You can ask all the questions you want before you decide.

WHY IS THIS RESEARCH BEING DONE?

This study hopes to provide an in-depth look at the experiences of professionals at learning assistance centers during Guided Pathways implementation. The study will attempt to identify barriers and promising practices that may be shared with other learning assistance professionals.

HOW LONG WILL THE RESEARCH LAST AND WHAT WILL I NEED TO DO?

Participation will take a total of about *30 minutes to 2 hours depending upon level of participation. The study will involve an initial screening, an interview, and potential follow-ups for further information/materials.*

If you volunteer to participate in this study, the researcher will ask you to do the following:

- *Complete an online 9-question screening survey.*
  - *These questions will ask about demographics, time at the college, role(s) on campus, and Guided Pathways participation.*
- *Provide materials related to the Success Center Redesign and/or Guided Pathways.*
  - *Materials may be physically or elecontrically provided. Detailed guidance on what artifacts are needed will be provided.*
- *Participate in a 1-hour interview.*
  - *Interviews may be conducted online via Zoom or in-person at the participant's institution.*
  - *Interview questions will include how you came into your role, services offered by your center, center re-oranization, and efforts at success and retention.*
- *Provide follow-up information related to the interview.*
  - *The researcher may ask participants to clarify parts of the interview or provide materials (if possible) that came up during the interview.*

ARE THERE ANY RISKS IF I PARTICIPATE?

- *Participants may feel uncomfortable answering questions honestly regarding their institution or success center.*

ARE THERE ANY BENEFITS IF I PARTICIPATE?

You may benefit from the study by:

- Reflecting on what your center is doing to contribute to the Guided Pathways.
- Contributing to the body of knowledge of learning assistance center professionals.
- Providing areas in which your institution may improve.

The results of the research may give learning assistance center professionals at Community Colleges much needed guidance as their college implements Guided Pathways. In turn, they may provide services that increase the success of all students, especially underserved populations of color.

What other choices do I have if I choose not to participate?

Your alternative to participating in this research study is to not participate.

HOW WILL INFORMATION ABOUT ME AND MY PARTICIPATION BE KEPT CONFIDENTIAL?

The researchers will do their best to make sure that your private information is kept confidential. Information about you will be handled as confidentially as possible but participating in research may involve a loss of privacy and the potential for a breach in confidentiality. Study data will be physically and electronically secured. As with any use of electronic means to store data, there is a risk of breach of data security.

Use of personal information that can identify you:

Each participant's name will be included on their interview transcripts and material, such as notes and file names, related to that interview.

How information about you will be stored:

Study data will be kept secure. Interview recordings, interview transcripts, documents, and photographs will be stored electronically, and password protected.

People and agencies that will have access to your information:

Only the researcher, Julius Duthoy, [do I include anyone else?] will have access to your information.

[UCLA standard language for routine access to data and records]

The research team, authorized UCLA personnel, and the study sponsor (remove if not applicable), may have access to study data and records to monitor the study. Research records provided to authorized, non-UCLA personnel will not contain identifiable information about you. Publications and/or presentations that result from this study will not identify you by name.

Employees of the University may have access to identifiable information as part of routine processing of your information, such as lab work or processing payment. However, University employees are bound by strict rules of confidentiality.

How long information from the study will be kept:

Interview recordings, transcripts, and documents will be deleted upon acceptance of the dissertation by the University of California, Los Angeles. Only documents that members have agreed can be shared in the appendices will be kept.

USE OF DATA [AND SPECIMENS] FOR FUTURE RESEARCH (required section)

Your data, including de-identified data may be kept for use in future research.

WILL I BE PAID FOR MY PARTICIPATION? (optional section)

Participants will be given a $5 Amazon gift card for their participation in the study.

WHO CAN I CONTACT IF I HAVE QUESTIONS ABOUT THIS STUDY?

The research team:

If you have any questions, comments, or concerns about the research, you can talk to the one of the researchers. Please contact: *Julius Duthoy at* jduthoy@g.ucla.edu or (562) 587-1803. You may also contact the faculty sponsor, Dr. Rios-Aguilar at rios-aguilar@gseis.ucla.edu.

UCLA Office of the Human Research Protection Program (OHRPP):

If you have questions about your rights as a research subject, or you have concerns or suggestions and you want to talk to someone other than the researchers, you may contact the UCLA OHRPP by phone: (310) 206-2040; by email: participants@research.ucla.edu or by mail: Box 951406, Los Angeles, CA 90095-1406.

WHAT ARE MY RIGHTS IF I TAKE PART IN THIS STUDY?

- You can choose whether or not you want to be in this study, and you may withdraw your consent and discontinue participation at any time.

- Whatever decision you make, there will be no penalty to you, and no loss of benefits to which you were otherwise entitled.
- You may refuse to answer any questions that you do not want to answer and still remain in the study.

You will be given a copy of this information to keep for your records.

HOW DO I INDICATE MY AGREEMENT TO PARTICIPATE?

If you want to participate in this study you should sign and date below.

SIGNATURE OF THE PARTICIPANT

_____

Name of Participant

_____   _____

Signature of Participant   Date

SIGNATURE OF PERSON OBTAINING CONSENT

_____   _____

Name of Person Obtaining Consent   Contact Number

_____   _____

Signature of Person Obtaining Consent   Date

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