

THE POTENTIAL FOR TARGETED CONTINUOUS QUALITY IMPROVEMENT TO
ENHANCE COLLEGE INTEGRATED STUDENT SUPPORTS FOR LATINE STUDENTS: A
CASE STUDY

By

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ABSTRACT

Latine persons involved in migrant farmwork are more likely to face challenges to higher education access and achievement (Araujo, 2011; Willison & Jang, 2009). The demands of migrant farmwork can create challenges for children in migrant farmworking families that pose obstacles to higher education success (Green, 2003; López et al., 2001; Zalaquett et al., 2007). The College Assistance Migrant Program (CAMP) aims to recruit and retain migrant farmworking students into higher education. Although researchers have begun to propose and explore approaches that can be incorporated to foster the continuous improvement of CAMPs, existing approaches have intensive resource requirements (e.g., Achieving The Dream [ATD], 2018). These high costs and resource requirements can constitute practical barriers to their integration at CAMPs that do not have access to the required resources. A more targeted deployment of Continuous Quality Improvement (CQI) may provide an approach to enhancing CAMPs that is more accessible to a broader array of higher education institution

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Dedico este trabajo a mis padres y a mi hermana.
Gracias por su apoyo incondicional.

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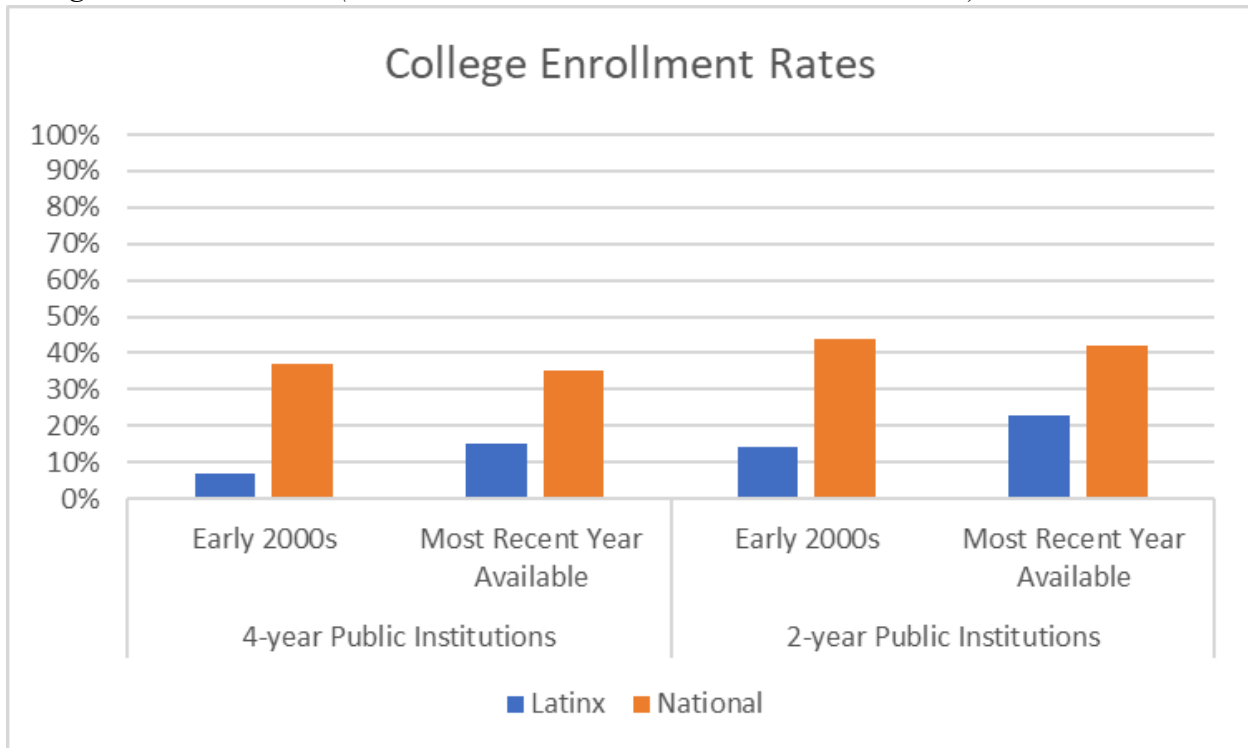
Introduction

Latines¹ Higher Education Students in the United States (U.S.)

Over the past few decades, Latines in the United States (U.S.) have made great strides in higher education achievement (Carnevale & Fasules, 2017). In the early 2000s, of the total fall enrollment, 7% and 14% were U.S. Latines enrolled in 4-year public and 2-year public institutions, respectively. This compared to national averages of 37% and 44%. In the most recent year available, of the total fall enrollment, 15% and 23% were U.S. Latines were enrolled in 4-year public and 2-year public institutions, compared to national averages of 35% and 42% (see Figure 1; Ma & Baum, 2016; National Center for Education Statistics [NCES], 2021a, 2021b, 2021c).

Figure 1

College Enrollment Rates (Ma & Baum, 2016; NCES, 2021a, 2021b, 2021c)



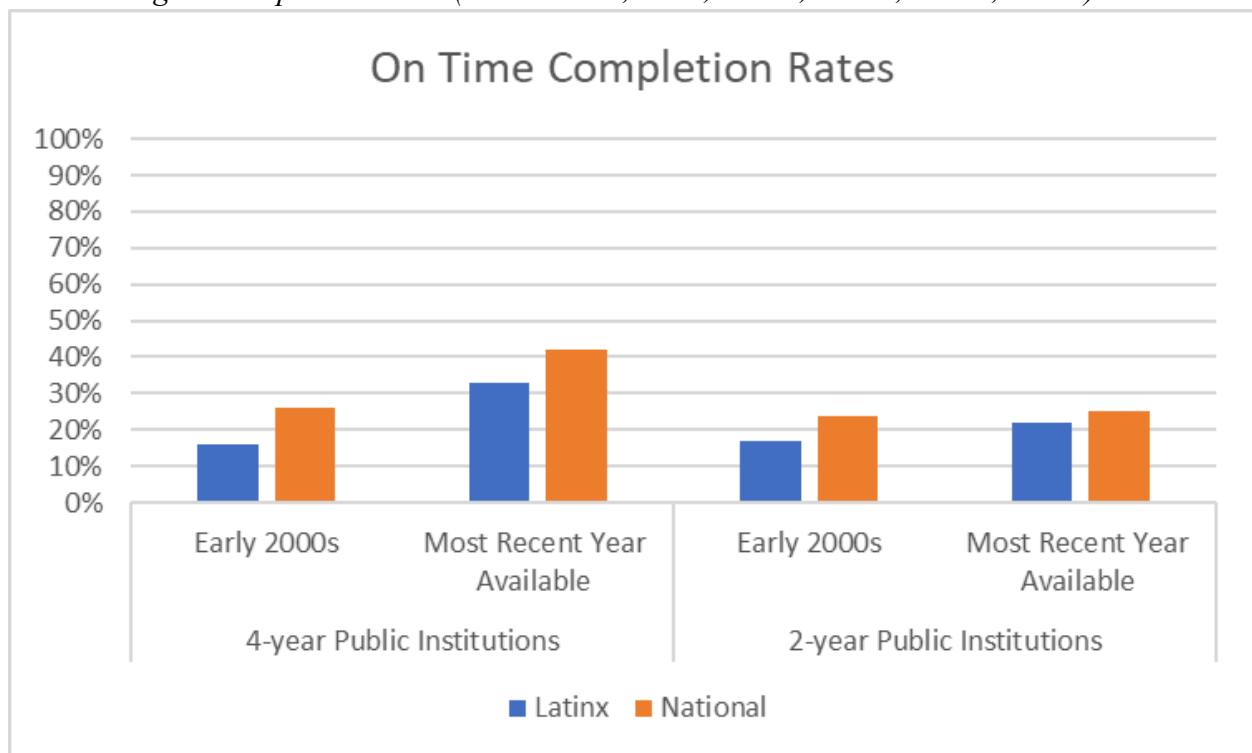
Note. These enrollment rates encompass total fall enrollment.

¹ We define a Latine person as one with self-identified heritage from a Latin American country.

On-time degree completion has also improved. In the early 2000s, 16% and 17% of U.S. Latines who were first time, full-time enrolled in 4-year public and 2-year public institutions, respectively, completed their degrees on time². This compared to national averages of 26% and 24%. In the most recent year available, 33% and 22% of U.S. Latine students who were first time, full-time enrolled in 4-year public and 2-year public institutions, respectively, completed their degree on time. This compared to national averages of 42% and 25% (see Figure 2; Ma & Baum, 2016; NCES, 2021a, 2021b, 2021c). Although there is still some work to be done for Latines in public higher education institutions to achieve parity with national averages, their progress over the past few decades has been remarkable.

Figure 2

On-time Degree Completion Rates (Ma & Baum, 2016; NCES, 2021a, 2021b, 2021c)



Note. These on-time degree completion rates encompass first time, full-time enrollment.

² Following established practices, we define on-time degree completion as occurring within 150% of expected time (i.e., 6 years for 4-years students and 3 years for 2-year students; Federal Student Aid, n.d.).

It is important to recognize that these recent gains begin to correct a long history of under- and miss-representation of Latine students in higher education (Cabán, 2003). It is important that Latines' increased presence in college campuses is reflected in institutional practices that respond to the multiple social, cultural, political, and economic contexts that Latine individuals live in. For example, by reflecting U.S. Latine contributions and issues in the curriculum and offering environments that are responsive to these various contexts (Luedke, C. L., 2017; Solórzano et al., 2000).

Latine Students in Migrant Farmworking Families

Despite overall gains in higher education, these successes are not shared equally among different Latine groups (Noe-Bustamante, 2020). For example, the changes in academic achievement among recent Latine immigrants differ markedly across national origin groups with some groups experiencing remarkable growth while others remain virtually stagnant (Noe-Bustamante, 2020). Beyond national origin, certain U.S. Latine groups are more likely to face challenges to higher education access and achievement. Among the most likely to face challenges are Latine persons involved in migrant farmwork (Araujo, 2011; Willison & Jang, 2009).

Migrant farmworkers are agricultural laborers who move their place of residence in response to seasonal patterns of planting and harvesting (Hernandez & Gabbard, 2018). Eighty percent of U.S. farmworkers identify as Latine, and over 70% are immigrants (Hernandez & Gabbard, 2018). The demands of migrant farmwork can create challenges for children in migrant farmworking families--such as disrupted schooling, economic barriers, and cultural barriers--that pose obstacles to higher education success (Green, 2003; López et al., 2001; Zalaquett et al., 2007). As a result of these obstacles, students from migrant farmworking families dropout of

high school at a rate four times higher than the national average (Coursen-Neff & Becker, 2010). Of those who complete high school, only a small proportion enroll in higher education, and a smaller proportion of these students achieve a college degree (Araujo, 2011; Willison & Jang, 2009). Although many migrant farmworker students overcome these challenges, average rates of high school completion, higher education engagement, and higher education degree attainment among migrant farmworking students are among the lowest in the U.S. (Araujo, 2011; Willison & Jang, 2009).

The College Assistance Migrant Program (CAMP)

In response to the challenges faced by students in migrant farmworking families, in 1972, the U.S. Office of Economic Opportunity established the College Assistance Migrant Program (CAMP) to recruit and retain migrant farmworking students into higher education. Currently, CAMP operates as a competitive grant administered by the U.S. Department of Education. Recruitment supports under CAMP focus on engaging migrant farmworker high school seniors into college. Students who are enrolled into higher education through CAMP then receive Integrated Student Services (ISS)³ that respond to their academic and social needs during the first year of college. The academic and economic supports provided by CAMP include tuition assistance, housing assistance, and tutoring. Social supports provided include counseling, mentoring, and assistance with personal needs. This initiative serves about 2,000 students annually at 40-60 CAMP sites across the U.S.⁴

From a perspective of institutional responsiveness to the multiple social, cultural, political, and economic contexts that Latine individuals live in, effective CAMPs can be thought

³ Integrated Student Services (ISS) address the academic and nonacademic needs of students, as they need them. The type and intensity of these services are based on individual student needs (Achieving The Dream [ATD], 2020).

⁴The U.S. Department of Education currently offers five-year CAMP grants. Because funding cycles vary across successfully-funded sites, the specific number of programs varies slightly from year to year.

of counter spaces; academic and/ or social spaces where the perception of people of color as deficient is challenged, thereby validating students' experiences and fostering positive relationships with students, staff, and faculty (Luedke, C. L., 2017; Solórzano et al., 2000). This is particularly likely to be the case for CAMPs that provide holistic and personalized support that speak to migrant farmworking students' identity and create a sense of belonging (Nuñez, 2009). Such CAMPs recognize the cultural capital of migrant farmworking students. That is, the cultural knowledge, skills, language, and abilities that allow students to navigate social institutions (Bourdieu & Passeron, 1977). For example, Yosso (2005) identifies 6 forms of capital that can foster students of color's successful navigation of college and other marginalizing societal institutions; Aspirational, familial, linguistic, navigational, resistant, and social capital.

According to Yosso (2005, p. 77), aspirational capital is the "ability to maintain hopes and dreams for the future, even in the face of real and perceived barriers." Familial capital are the "cultural knowledges nurtured among familia (kin) that carry a sense of community history, memory[,] and cultural intuition" (Yosso, 2005, p. 79). Linguistic capital are the "intellectual and social skills attained through communication experiences in more than one language and/or style" (Yosso, 2005, p. 78). Navigational capital is the "ability to maneuver through [social] institutions not created with Communities of Color in mind" (Yosso, 2005, p. 80). Resistant capital are the "knowledges and skills fostered through oppositional behavior that challenges inequality" (Yosso, 2005, p. 80). Social capital includes "networks of people and community resources" that can provide "instrumental and emotional support to navigate through society's institutions" (Yosso, 2005, p. 79).

CAMPs have been successful in promoting higher education enrollment, retention, and graduation among migrant farmworking students (Ramirez, 2012; Willison & Jang, 2009). For example, 81% of students served by 64 CAMPs continued on to the 2nd year of higher education (Willison & Jang, 2009). After accounting for socioeconomic background, CAMP students from 6 California State University campuses had higher 1st year GPA and higher degree attainment than non-CAMP Latine and non-Latine students at these campuses (Ramirez, 2012).

Despite these successes, researchers have observed that there is variability in the impact of CAMP across sites and speculate that this is due to cross-site differences in the inclusion of CAMP best practices (Willison & Yang, 2009). Acevedo-Polakovich and colleagues (2022) recently conducted a systematic review to identify key CAMP practices with some form of empirical support. These are listed in Table 1 below. One obvious way to continue improving CAMPs is to integrate missing key practices or improve the incorporation of key practices.

Table 1
Successful CAMP Components

Domain	CAMP Component
Phase One	
Recruitment	Assistance with official forms ^{1,2}
Phase Two	
Academic Preparation	University Orientation ^{1,2} Freshman Seminar ² Assistance with college transition ^{1,4} Internal Academic Partnerships ⁴
Academic Support	Skills assessment ¹ Tutoring ^{1,2} Class Advising ^{2,4}
Financial Assistance	Tuition ^{1,2} Scholarships ⁵ Housing ^{1,2,5} Food ⁵
Cultural Exposure	On-campus cultural celebration participation CAMP retreats ²
Professional Development	Resume preparation ² Career advising ² Required Community Service Hours ¹
Personal Support	Sense of community ^{1,2,4,5} CAMP drop-in center ^{2,4} Healthcare service referrals ¹
Phase Three	
Internships	Internship Preparation ²

Note. ¹Araujo, 2011; ²Escamilla & Trevino, 2014; ³Mendez & Bauman, 2018; ⁴Ornelas-González, 2010; ⁵Ramirez, 2012; ⁶Willison & Jang, 2009. Table provided by Acevedo-Polakovich and colleagues (2022).

Continuous Quality Improvement of ISS

Researchers have begun to propose and explore approaches that can be incorporated to foster the continuous improvement of ISS such as CAMP (Achieving The Dream [ATD], 2020).

Currently explored approaches involve resource-intensive strategic, complex, and coordinated processes. For example, the ATD Holistic Student Supports Redesign toolkit, one of the leading current approaches, outlines a 4 stage process that is completed over the course of a year through a coordinated partnership between ATD Holistic Student Supports Redesign team members (including a dedicated coach and subject-matter expert) and college decision makers. The process involves 22 assessments, 3 coaching visits, 10 hours of virtual coaching, and 1 comprehensive site visit per year. This process is outlined in a 124-page structured manual (ATD, 2020). Unfortunately, the high costs and resource requirements of approaches such as the ATD Holistic Student Supports Redesign toolkit can constitute a practical barrier to their integration at CAMPs that do not have access to the required resources and/or where commitment varies across constituencies within a higher education institution (ATD, 2018).

A more targeted, tailored deployment of Continuous Quality Improvement (CQI) may provide an approach to enhancing CAMPs that is more accessible to a broader array of higher education institutions. Although currently proposed approaches to CQI for higher education ISS are holistic and transformational (e.g., ATD, 2020), CQI can be deployed in a more targeted, iterative manner as it is a broad approach for collecting, analyzing, and using data to improve the quality of services or processes on a continuous basis (Taylor et al., 2014). A more targeted deployment may make it more viable to institutions that may not meet the resource and readiness requirements of the broader, transformational process.

CQI originated in the industrial and manufacturing sectors and has been influential in health care since the 1990s (Hill et al., 2020), with more recent applications in higher education, particularly--but not limited to--higher education focused on professions associated with industry or healthcare (e.g., Hill et al, 2020; Knudsen et al., 2019). In a study of Quality Improvement

experts, Rubenstein and colleagues (2014) identified 8 core features of CQI. These are listed and defined in Table 2. As noted therein, Rubenstein and colleagues (2014) found that there were differences in the importance of these features. Three were essential and/or definitional, any CQI intervention would need to include these. Five were considered important but not essential, their incorporation would depend on the scope and complexity of a CQI intervention.

Table 2
Features of CQI (Rubenstein et al., 2014)

Feature	Definition
<i>Essential Features</i>	
Systematic Data Guided Activities	Uses systematic data-guided activities (e.g. aims and measures) to achieve improvement
Iterative Development and Testing	Involves an iterative (more than one cycle) development and testing process such as PDSA
Designing with Local Conditions in Mind	Is designed/implemented with local conditions in mind (i.e. to fit the special characteristics of targeted local environment(s))
<i>Important Features</i>	
Specific Predefined Aims	Seeks to achieve specific pre-identified aims, targets or outcomes
Set of Specific Changes	The initiative seeks to implement a set of specific changes in order to embed improvements in routine or daily care work processes
Multidisciplinary Teams from Target Organizations	Designed and/or carried out by multidisciplinary teams that include members from the target organizations/communities
Data Feedback to Implementers	Involves feedback of data (e.g. quantifiable performance measures/benchmarks) to initiative designers and/or implementers
Aiming to Change Routine Work Processes	Aims to change how routine or daily care work processes are organized, structured or designed

Although there are various models to guide CQI interventions, the most widely used is the Plan-Do-Study-Act (PDSA) model, which consists of 4 phases that are repeated sequentially: Plan, Do, Study, and Act (Knudsen et al., 2019). Figure 3 illustrates these four phases, as well as outlines and expands upon the core components for each phase (Moen, 2009). During the Plan Phase, CQI teams set objectives and develop plans to establish these. During the Do Phase, CQI teams carry out plans and begin their evaluation. During the Study Phase, CQI teams complete an evaluation of initial activities and derive lessons that can be used going forward. During the Act Phase, CQI teams determine what changes will be made based upon their completed evaluation and determine the timing and objectives of a new PDSA cycle. Each PDSA cycle is iterative and increases in scope as it advances to the next sequence. I provide a visual representation of this cyclical process in Figure 4.

Figure 3

Core components of the The Plan-Do-Study-Act (PDSA) Model (Moen, 2009)

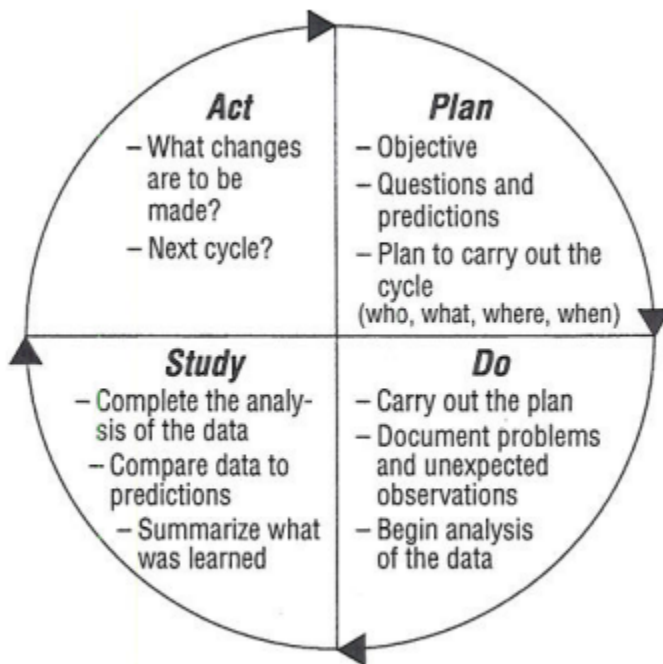
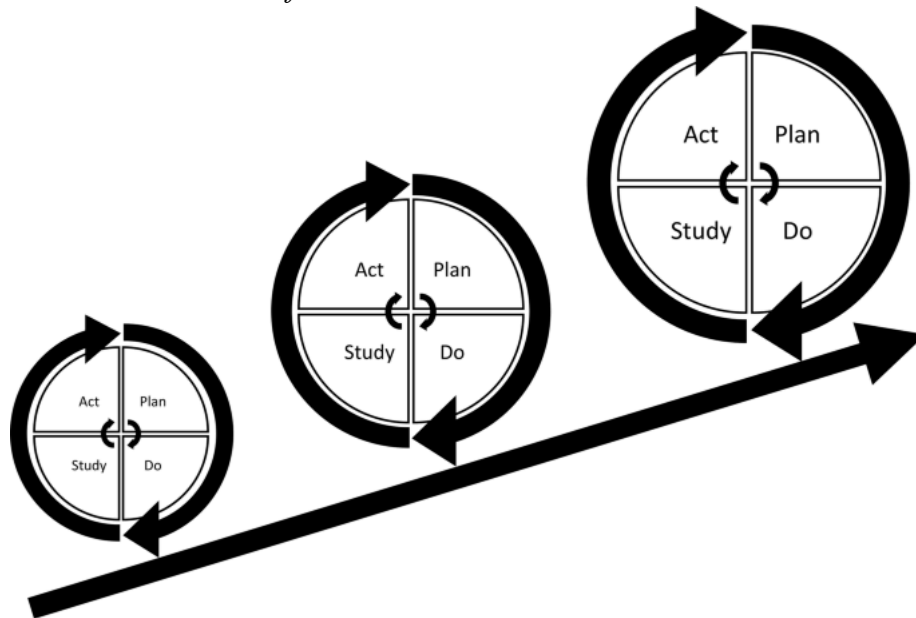


Figure 4
The Iterative Nature of the PDSA Model



Note. The PDSA cycle spans four phases: Plan, Do, Study, and Act. Each cycle of the PDSA model increases in scope as it advances to the next sequence.

Impacts of CQI

There have been few rigorous studies or evaluations that empirically examine the impacts of CQI in higher education, and fewer still focused on the impacts of CQI focused on ISS in higher education. Most examinations of CQI in higher education that appear in the peer reviewed literature are descriptive, but do provide positive appraisals of the impact of PDSA. For example, Bennet and colleagues (2015) described their application of PDSA to improve the mission, vision, values, and competencies of a Masters of Health Administration program. Importantly, the authors attributed improvements in their progress as assessed by the Commission on Accreditation on Healthcare Management Education to their incorporation of PSDA. More recently, Sayah and Khaleel (2022) described their use of PDSA to examine and foster the application of accreditation standards across the various colleges in one university. These authors reported increases of 11.5% to 12.1% in the application of accreditation standards across colleges

as a result of PDSA. Though limited, these studies support further research examining the potential of CQI in higher education settings.

The few available evaluations of CQI's impact on ISS in higher education have focused on Achieving the Dream's complex, extensive, and resource intensive approach (ATD, 2018). Across four public higher education institutions that used this approach, key stakeholders qualitatively reported positive benefits from it on structures and processes supporting the retention and graduation of their students (ATD, 2018). These evaluations speak to the perceived impact of the more complex and resource intensive approaches to CQI on ISS in higher education.

CQI has been more extensively and rigorously evaluated in healthcare settings, where scholars have recently identified the features of CQI that are most closely tied to impacts in these settings. In a recent systematic review of CQI in healthcare, Hill and colleagues (2020) found that positive impacts were more likely when outcomes focused on processes, when PDSA was the specific CQI approach used, and when CQI meetings were conducted with more frequency (i.e., weekly) and involved decision makers. These results suggest that--despite CQI's intuitive appeal and widespread use in healthcare--effects on outcomes require thoughtful, high-quality integration. Arguably, these insights should be considered in CQI studies within higher education.

To summarize, researchers have documented the promise of PDSA within higher education (Bennet et al., 2015; Sayah & Khaleel, 2022) and the perceived impact of complex, resource intensive CQI on higher education ISS (ATD, 2018). These insights can be augmented by findings in healthcare settings, where CQI has been more widely and rigorously studied. The

findings from research in healthcare suggest that thoughtful, high-quality CQI integration fosters desired outcomes (Hill et al., 2020).

Stages of Research

Taken together, the findings from prior research on higher-education ISS, CAMP, and CQI support our suggestion that a targeted approach to CQI has promise as an effective approach to enhancing the effectiveness of specific CAMP sites. A prudent first step in assessing whether this promise can lead to improved outcomes is to determine whether it is in practice feasible to implement targeted CQI in CAMP, and--relatedly--whether key decision makers associated with CAMP perceive targeted CQI to be acceptable and appropriate (Bowen et al., 2009). Whereas acceptability is the perception that a given practice or innovation is satisfactory, appropriateness is the perceived fit of a given practice or innovation for a particular setting, population, or issue (Proctor et al., 2011; Weiner et al., 2017). Both of these variables are often early indicators of the later success of a practice or innovation (Bowen et al., 2009). Once feasibility, acceptability, and appropriateness are established, research can be conducted on a practice or innovation's effectiveness and on the strategies that best foster its successful implementation (Curran et al., 2012).

Proposed Study

Given:

1. The known role of high quality ISS in reinforcing the academic efforts of migrant farmworking college students enrolled in CAMP;
2. The obstacles to incorporation associated with the high costs and resource requirements of existing complex and extensive approaches to instituting CQI in higher education ISS;
3. The promise of a more targeted CQI process to be easily incorporated by a greater variety of CAMP sites;
4. The benefits of establishing feasibility, acceptability, and appropriateness of an intervention before studying its effectiveness and implementation.

I propose to examine:

1. Whether a targeted CQI approach can be used in a CAMP site (feasibility);
2. Whether key community partners involved in the CQI process perceive it as a feasible, acceptable, and appropriate approach;
3. Whether its incorporation leads to structural/procedural changes in the manner CAMP is offered to students (process impacts);
4. Barriers and facilitators to the use of this approach.

Method

Research Paradigm and Qualitative Approach

My dissertation project is guided by the principles and practices of Community Based Participatory Research (CBPR), a systematic approach to knowledge generation that involves the participation of those affected by the issue being studied with the purpose of creating change (Minkler et al., 2018). CBPR aligns with key components of high-quality CQI including Designing with Local Conditions in Mind (i.e., that is making sure that the the CQI “fit the special characteristics of targeted local environment(s);” Rubenstein et al., 2014, p. 9) and including Multidisciplinary Teams from Target Organizations (i.e., making sure CQI is “designed and/or carried out by multidisciplinary teams that include members from the target organizations/communities;” Rubenstein et al., 2014, p. 9). In practice, I executed the CBPR process using a mixed methods case study approach to testing the acceptability, appropriateness, and feasibility of targeted CQI as a strategy to facilitate the improvement of ISS in a CAMP site.

Advantages of CBPR

Aside from being well-aligned with CQI, CBPR also has several advantages. For example, CBPR can enhance the quality, validity, sensitivity, and practicality of research instruments by involving the local knowledge of community members. It facilitates the generations of question and knowledge from the community, which--therefore--may be more valid in the eyes of the community. Because of community involvement, CBPR projects also facilitate increased relevance for, adoption by, and engagement with community members (Minkler et al., 2018). Community participation in reviewing and interpretation of data may add nuance and context to analyses and their interpretation, allowing for a deeper understanding of, and support for, study results. Community partners can help identify more effective, and

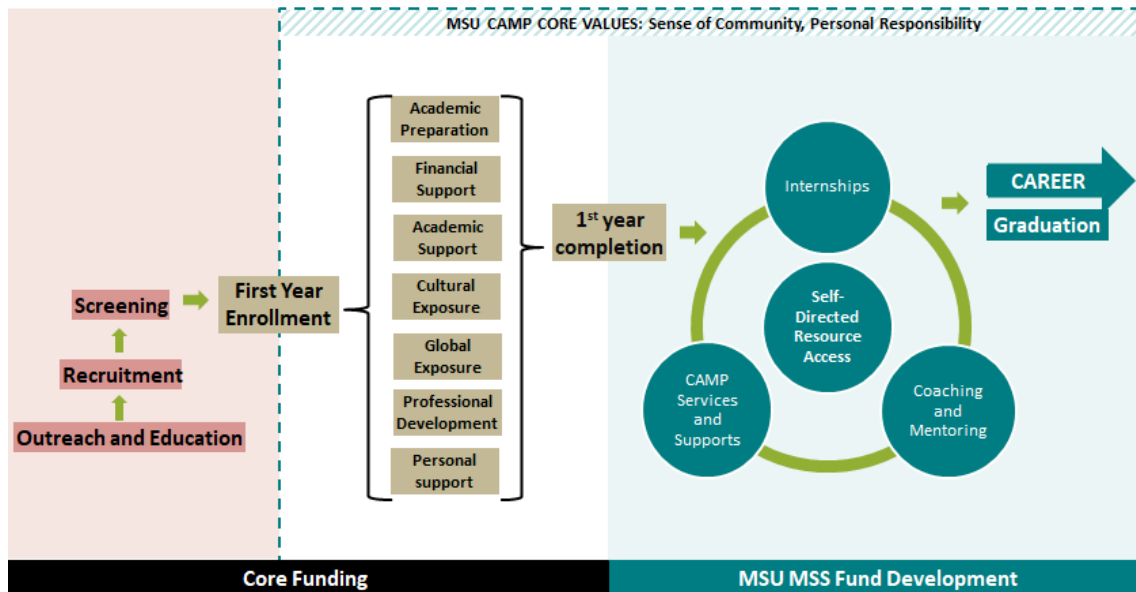
relevant, ways of disseminating findings and furthering systemic impacts outside of the traditional peer-reviewed journals (Minkler et al., 2018). My use of CBPR to center the perspectives of CAMP staff and administrators represents a form of counter storytelling, a “method of telling the stories of those people whose experiences are not often told” (Solórzano & Yosso, 2002, p. 32). The CAMP staff and administrators that participated in this study work closely with CAMP students and many of them were themselves CAMP students.

Context

I propose to study the incorporation of a targeted CQI approach in the context of CAMP at Michigan State University (MSU) in East Lansing, Michigan. MSU CAMP was established in 2000 and currently has a goal of serving 50 first year students annually. Figure 5 is a logic model describing the services, supports, values, and targeted outcomes of MSU CAMP. As detailed therein, there are three key service periods: Prior to enrollment, first year, and subsequent years. The first two service periods are supported by the federal CAMP grant. The final service period is supported by funds donated directly to MSU CAMP including funds from the university.

Prior to enrollment, MSU CAMP provides outreach in migrant farmworking communities (principally in Texas, Florida, Michigan, and California) about the benefits of higher education and college application and funding processes. MSU CAMP also conducts recruitment into their program in these communities, including support with applications, and initial screening thereof. The targeted outcome of this period is to enroll 50 new migrant farmworking students into MSU CAMP each year.

Figure 5
MSU CAMP Logic Model



Two core values are reflected in all of MSU CAMP’s services and supports: fostering a sense of community among migrant farmworking students, and fostering personal responsibility for engaging with needed services and supports. During first year enrollment, students receive several types of supports, including academic preparation prior to the academic year, academic support during the academic year, financial support, cultural exposure, global exposure through service learning abroad, professional development, and personal supports including advising and counseling as needed. The target outcome of this period of support is the completion of one year of higher education enrollment in good standing.

After the completion of the first year of academic education, these supports remain available to MSU CAMP scholars on a self-directed, as-needed basis, and students additionally have access to professional internships through the National Migrant Scholars Internship Initiative, which is also coordinated by MSU. The target outcome for this period of support is successfully graduation and transition into a professional career.

As noted in this logic model, MSU CAMP also incorporates most, but not all, suggested best CAMP practices, which makes it a good test site for a feasibility study. In the most recent programming year, about 86% of first-year students successfully completed 24 credits in good academic standing and 85% of CAMP participants that successfully completed their academic year continued to be enrolled in a higher education institution (Potter et al., 2022).

I developed the objectives and methods of the dissertation project in collaboration with the community of practitioners running CAMP at Michigan State University. These individuals have a long history of involvement with MSU CAMP, with most having graduated from the program. As such, they bring to our collaboration their perspective as former migrant farmworking college students, former MSU CAMP students, and current CAMP practitioners. Most current CAMP practitioners identify as Mexican American, and have a history of migrant farmwork across agricultural routes anchored in the south of the U.S. by the farming communities in the Rio Grande Valley of Texas and in the north by the farming communities in Michigan's western lower peninsula.

Researcher Characteristics and Reflexivity Statement

I am a Mexican-American first-generation college and graduate student born to Mexican immigrant parents. Like many first-generation students, I had to learn to navigate many new and unexpected higher education experiences (e.g., how to navigate being in college and how this may clash with my social and cultural identities). In college, I was fortunate to be enrolled in a first-year support program that targeted Latine students, which then connected me to other, longer-lasting supports and services.

Given my experiences, I am very invested in ensuring that programs like CAMP continue to provide Latine students with the academic, social, and cultural supports they need. And, while

I do not share a migrant farmworking background, and with the understanding that the term ‘Latine’ encompasses a broad and varied group, I can still empathize with some core experiences of CAMP’s key demographic. While I can’t completely set aside my personal experience, I make sure to practice the tenets of good science: ensuring the rigor of the methods, accurately administering instruments, running appropriate statistical analysis, etc.

Relevant Training

During the Spring semester of 2022, I collaborated in a CQI learning group with other graduate students and faculty. Our group had the objectives of understanding the theory, history, and research base for CQI, both generally and specifically as linked to higher education. This group met biweekly to discuss core peer-reviewed readings on CQI, propose ideas for their incorporation into consultation, evaluation, and research projects, and provide feedback on said projects as these developed.

My practical experiences involve work around supports for Latine students in public higher education institutions. During the 2018-2019 academic year, I completed a practicum experience with the Latinos Unidos con Energía, Respeto, y Orgullo (LUCERO) program at Lansing Community College (LCC), which is a Support Services program designed to assist in the recruitment, retention, graduation and transfer of LCC students of color, particularly Latine students. I remained involved as a volunteer consultant with LUCERO and during the Summer of 2021 took a position as a recruitment and retention specialist with the same program.

I have been involved in supervised consultation, evaluation, and research activities involving CAMP, at MSU and in other campuses, since 2019. My evaluation and consultation experiences have focused on assessing CAMP’s adherence to established evaluation metrics, providing directions for improved adherence to these metrics (Normand et al., 2019), and

developing strategies for incorporating CQI into CAMP. My research experiences have focused on the development of psychometric scales to assess core components of CAMP (Domínguez-Rebollar, 2019).

Ensuring and Evaluating Fidelity to PDSA

To ensure fidelity to the CQI process, I followed the steps recommended as part of the PDSA cycle (see Figure 4), regularly using the PDSA Fidelity Checklist (see Table 3) to monitor my adherence to PDSA's core components.

Table 3
Dissertation Study Success Components

Weekly Meeting Checklist
<input type="checkbox"/> Did a meeting happen this week? <input type="checkbox"/> Did your identified key decision makers attend the meeting?
<input type="checkbox"/> What is being done this week? <input type="checkbox"/> Which phase of PDSA is happening this week? <input type="checkbox"/> Discuss current PDSA progress, including problems and unexpected observations
<input type="checkbox"/> Were this week's activities, changes, and observations being documented? <input type="checkbox"/> Were problems and unexpected observations documented?
<input type="checkbox"/> Review the Action Plan and Action Plan Checklist
<input type="checkbox"/> Did other CQI activities happen this week?
<input type="checkbox"/> Discuss next actions

PDSA Fidelity Checklist (Moen, 2009)
<input type="checkbox"/> Plan <input type="checkbox"/> Create objectives <input type="checkbox"/> Create questions and predictions <input type="checkbox"/> Determine the who, what, where, and when of the cycle
<input type="checkbox"/> Do <input type="checkbox"/> Carry out the plan <input type="checkbox"/> Document problems and unexpected observations <input type="checkbox"/> Begin analysis of data

Table 3 (cont'd)

-
- Study
 - Complete analysis of data
 - Compare data to predictions
 - Summarize findings
 - Act
 - What changes will be made?
 - Will there be a next cycle?
 - What will happen in the next cycle?
-

CQI Fidelity Checklist (Rubenstein et al., 2014)

- Involves more than one (1) cycle of a development and testing process (Iterative Development and Testing)
 - Designed/implemented with local conditions in mind (Designing with Local Conditions in Mind)
 - Team include members from the target organizations/communities (Multidisciplinary Teams from Target Organizations)
 - Specific aims, targets and/ or outcomes are pre-identified (Systematic Data Guided Activities, Specific Predefined Aims, Set of Specific Changes)
 - Pre-identified specific aims, targets and/ or outcomes focused on changing/ improving how processes are organized, structured or designed (Aiming to Change Routine Work Processes)
 - Data feedback given to designers and/or implementers (Data Feedback to Implementers)
-

Supervision

Both CQI and my evaluation thereof was supervised by my dissertation chair, Dr. Ignacio Acevedo-Polakovich. Dr. Acevedo has over 15 years of experience implementing and evaluating CQI and ISS in educational settings. He is a co-author of a leading model of organizational service improvement to ensure service equity (i.e., Hernandez et al, 2009; Acevedo-Polakovich et al., 2011). In addition, he has seven years of experience evaluating CAMP initiatives and consulting on their CQI (e.g., Acevedo-Polakovich, 2019; Acevedo-Polakovich, & Nordquist, 2017; Acevedo-Polakovich et al., 2022) and is collaborator on research to document and evaluate the core practices of CAMP (e.g., Acevedo-Polakovich et al., 2022). Dr. Acevedo met with me

on a weekly basis during the course of my CQI activities. During these meetings, we reviewed the practice agenda set during our previous meeting, discussed successes and problem-solve obstacles, and set a practice agenda for the ensuing week.

Sampling

Given that I was looking at a specific CAMP site in this case study, I used purposive sampling by enrolling participants who play key, relevant roles within MSU CAMP, in particular CAMP administrators and professional staff. Purposive sampling is an appropriate technique for studies, like mine, that are limited in scope (Teddlie & Yu, 2007). Although I developed the objectives and methods of the dissertation project in collaboration with many of these individuals, I made sure to obtain informed consent from each participant to ensure that they are aware of any potential risks or benefits to their involvement in the study. To ensure that they have the opportunity to decline or accept without coercion, I met with each practitioner individually and in a campus location away from the MSU CAMP office. I also ensured that individual data collection activities are conducted in a location of the participant's choosing.

Participants

Participants included 6 CAMP administrators, staff, and other individuals with vested interest in the success of MSU CAMP such as the instructional team of MSU's International Experience in Mexico (IEM)⁵. This sample represented 75% of MSU CAMP administrators and practitioners, complemented by a few other individuals who work in close collaboration with CAMP.

⁵ Originally developed by MSU CAMP, and currently managed by MSU CAMP affiliates, IEM is a service-learning abroad course available to all MSU undergraduates and required of first-year MSU CAMP students. IEM instructional staff includes a classroom instructor, two city instructors per city in Mexico (typically 3-6 cities), and team leaders for each service-learning project (typically 3-4 projects per city). All members of the instructional staff are affiliated with MSU as either faculty, staff, or students, and some of the instructional staff are also MSU CAMP practitioners. Most, but not all, of the instructional staff identify as Latine, primarily Mexican and Mexican American. Currently IEM only exists in the MSU CAMP initiative.

Ethical Issues Pertaining to Human Subjects

I ensured that study protocols and materials, including informed consent, are approved by MSU's Internal Review Board (IRB) before conducting my project. I obtained informed consent from participants before I collected any data. Participants were free to stop taking part of this study at any time without any negative repercussions to themselves. In order to avoid coercion, I contacted all participants directly to tell them about my proposed study, and, if they choose to participate, for informed consent and individual data collection I met them at a location of their convenience, such as their office, or a private study room in the MSU Main Library.

To the extent that I can do so without compromising anonymity or confidentiality, and with participants' consent, I made every attempt to take into account who participants' intersectional background may impact their experiences. That is, to examine whether the intersection of their race, ethnicity, gender identity, sexual orientation, or other demographic characteristics plays a role in the manner in which they experience and perceive MSU CAMP. That said, the small number of participants in this study compromise my ability to tie results to demographic characteristics without compromising participant anonymity. For this reason, I collected demographic information (see Appendix C) separately from other forms of information such that it cannot be linked with survey responses on interview data. Although this approach prevents me from a detailed exploration of how participants' background may impact their experiences, it does allow me to ensure their anonymity and to provide an aggregate description of the group of individuals who participated in this study.

Data Collection Instruments and Technologies

Acceptability of Intervention Measure (AIM; Weiner et al., 2017)

The Acceptability of Intervention Measure (AIM; Weiner et al., 2017) is a 4 item psychometric scale assessing the acceptability of an intervention. Acceptability is the perception that a given practice or innovation is satisfactory (Proctor et al., 2011; Weiner et al., 2017). Acceptability is often used as an indicator of success (Bowen et al., 2009). Scale responses range from 1 (completely disagree) to 5 (completely agree). The structural validity of this scale had an alpha of 0.85 and the test-retest reliability had an alpha of 0.83.

Intervention Appropriateness Measure (IAM; Weiner et al., 2017)

The Intervention Appropriateness Measure (IAM; Weiner et al., 2017) is a 4 item psychometric scale assessing the appropriateness of an intervention. Appropriateness is the perceived fit of a given practice or innovation for a particular setting, population, or issue (Proctor et al., 2011; Weiner et al., 2017). Appropriateness is often used as an indicator of success (Bowen et al., 2009). Scale responses range from 1 (completely disagree) to 5 (completely agree). The structural validity of this scale had an alpha of 0.91 and the test-retest reliability had an alpha of 0.87.

Feasibility of Intervention Measure (FIM; Weiner et al., 2017)

The Feasibility of Intervention Measure (FIM; Weiner et al., 2017) is a 4 item psychometric scale assessing the feasibility of adopting an intervention. Feasibility is the extent to which a given practice or innovation can be successfully carried out within a particular agency or setting (Proctor et al., 2011; Weiner et al., 2017). Feasibility is often used as an indicator of success (Bowen et al., 2009). Scale responses range from 1 (completely disagree) to 5

(completely agree). The structural validity of this scale had an alpha of 0.89 and the test-retest reliability had an alpha of 0.88.

Qualitative Interviews

I conducted qualitative interviews during the Plan and Study phases of the PDSA model. During the Plan phase, I asked participants what changes they would like to see in CAMP. I also ask participants to identify barriers, facilitators, problems, challenges, strengths, weaknesses, recommendations, and considerations to take into account when using the targeted CQI.

During the Study Phase, I asked participants what they think of the changes made and what other changes they would like to be made in future iterations of targeted CQI. I also asked participants about their perceptions of barriers, facilitators, problems, challenges, strengths, weaknesses, recommendations, and considerations associated with the targeted CQI process. Additionally, I asked open-ended questions about the acceptability, appropriateness, and feasibility of targeted CQI.

Data Collection Approach

Following the PDSA cycle, this study was completed in four phases: Plan, Do, Study, and Act.

Plan

Following the CQI cycle we first met with CAMP leadership to determine what they would like us to focus on during this particular CQI cycle. For this CQI cycle, CAMP leadership identified participation in IEM as a crucial point in first-year CAMP student higher education engagement engagement, and bid us to explore ways in which some of the type of engagement that happens through IEM may be brought into the Fall semester. During this phase, I also conducted qualitative interviews with key CAMP administrators, staff, and other individuals

with vested interests. I describe these interviews in the measures and materials section of this dissertation.

As part of these interviews, I also established the current state of MSU CAMP. I did this by using the CAMP Best Practices Checklist to determine what practices are currently in place and to see what practices have not yet been incorporated at MSU CAMP. Presented in Table 1, this checklist provides respondents with the opportunity to mark whether their site includes each of the several specific components that researchers have found to promote migrant farmworker student engagement, retention, and graduation (Acevedo-Polakovich et al., 2022). After the checklist and interviews with community partners were completed, I created an Action Plan based on community partner recommendations and needs along with an Action Plan Checklist, based on the action plan.

Table 4

Action Plan and Action Plan Checklist

Action Plan

- Create 3 Youth Go Groups
 - Site leaders - especially returning students
 - Contact Anel Aguilar
 - First- and second-time travelers debriefing
 - March travelers
 - May travelers

 - When?
 - Site leaders
 - Pre IEM trip - 2/19/2023 - on hold
 - First- and second-time travelers debriefing
 - Post March trip - 4/16/2023
 - Post May trip - 5/6/2023

 - Questions to ask
 - In your opinion, what is it about the International Experience in Mexico (IEM) that is so impactful?
 - In your opinion, what can we do to recreate these impacts earlier in Fall semester prior to IEM?
-

Action Plan Checklist

- Create 3 Youth Go Groups
 - Site leaders
 - March travelers
 - May travelers

 - Schedule Youth Go Groups
 - Site leaders
 - March travelers
 - May travelers

 - Facilitate Youth Go Groups
 - Site leaders
 - March travelers
 - May travelers
-

Do

During this phase, I executed the Action Plan and documented changes I observed using the Action Plan Checklist. During this period, I also met weekly with key CAMP decision makers. During these meetings, I reviewed what activities are being completed that week, as well as discussed current PDSA progress and adjusted as needed. I also documented the week's activities, changes, and observations. During this phase, I also began analysis of the data gathered. This entire process is described in further detail in the following section elaborating on our CQI Intervention with CAMP.

Study

During this phase, I completed my data analysis and studied the impact of the previous Do phase. Guided by the Action Plan Checklist, I noted which actions were completed. I also administered the AIM, IAM, and FIM (Weiner et al., 2017) scales to determine the acceptability, appropriateness, and feasibility, respectively, of targeted CQI as a strategy to facilitate the adoption and use of ISS elements in a CAMP site. During this phase, I also conducted qualitative interviews to obtain participants' perceptions of the targeted CQI process. I further describe these interviews in the measures and materials section of this dissertation. No formal predictions were made during this CQI cycle.

Act

During this phase, our findings were summarized and shared with my community partners. Together with CAMP administrators and staff, we discussed our findings and recommendations for directions for programmatic changes and future research based on the findings from the Study phase. I also gave recommendations based on CAMP community partner insights. Together we determined that there would be another CQI cycle focusing on carrying out

a time-limited service learning project during the new CAMP student orientation, as decided by CAMP staff and administrators.

CQI Intervention - PDSA Cycle

Following the PDSA cycle, the CQI cycle was completed in four phases: Plan, Do, Study, and Act.

Plan

During this phase, I met with CAMP leadership to determine what they would like us to focus on during this particular CQI cycle. CAMP leadership identified participation in the IEM as a crucial point in first-year CAMP student higher education engagement engagement, and bid us to explore ways in which some of the type of engagement that happens through IEM may be brought into the Fall semester. During this phase, I also conducted qualitative interviews with key CAMP administrators, staff, and other individuals with vested interests. I used the information gathered through them to create an Action Plan based on community partner recommendations and needs along with an Action Plan Checklist, based on the action plan.

Do

During this phase, I executed the Action Plan and document changes I observed using the Action Plan Checklist. The Action Plan consisted of conducting Youth Generate and Organize⁶ (GO) Group with CAMP students who participated in the Spring 2023 IEM program. Youth GO participants were asked:

- What is it about IEM that is so impactful?
- What can we do to recreate these impacts earlier in the Fall semester prior to IEM?

⁶ Generate and Organize groups involve a 5-step participatory approach that allows participants to generate and organize their collective perspectives on a topic.

During this period, I also met weekly with key CAMP decision makers. During these meetings, I reviewed the activities being completed that week, as well as discussed current PDSA progress, including problems and unexpected observations, and adjusted as needed. I also documented the week's activities, changes, problems, and observations. During each meeting, I reviewed the Action Plan, Action Plan Checklist, and Weekly Meeting Checklist. As part of this review, I facilitated problem solving around any planned actions that may have encountered obstacles and established planned actions to be conducted before the next meetings (see Table 3). During this phase, I also began analysis of the data gathered.

Study

We found that IEM is impactful for CAMP students because it offers them the opportunity to engage with, and learn about, a culture and environment that overlaps with, but expands from, their own. It was also impactful for them to have the opportunity to form relationships with people with varied backgrounds, as well as the opportunity to serve others and reflect on personal privilege. A way that would allow CAMP students to experience these impacts earlier in the Fall semester could be to offer or require a service learning experience that features these same three characteristics.

Act

Based on our findings, we recommended that CAMP organize local service learning or community engagement experiences during the late Summer or Fall semester. This may facilitate some of the IEM experiences and also prime skills and experiences that might strengthen IEM impacts. As a reflection on privilege and positionality that is core to IEM, students would benefit from engaging with and serving communities that offer opportunities for said reflection.

These Summer/ Fall semester service learning and community engagement experiences could take a variety of forms. These range from time-limited service learning experiences to multi-semester service learning and topical course sequences. This approach to service could also be expanded over time such that an initial limited-duration project can later be built into an IEM-type course and, eventually, into a more complex course sequence. This strategic and iterative approach could allow CAMP the opportunity to build infrastructure for a fall experience without compromising the capacity required by its existing fall activities.

Our findings and recommendations were summarized in a presentation and report that were prepared and presented to key CAMP administrators. Once we presented these findings and recommendations, we discussed next actions. CAMP administrators determined that the best course of action would be to add a time-limited service learning project to the new CAMP student orientation this summer. Together we determined that there would be a next CQI cycle. During this next cycle, CAMP administrators and staff agreed to try to incorporate a time-limited service learning project to the new CAMP student summer orientation.

We included this feedback in a follow-up memo (see Appendix D) that summarized all the CQI activity up to now. We then send it to all CAMP staff that participated in the pre-interviews. The purpose of the report is to update all pre-interview participants on our current CQI status, so they can be up to date before we conduct post-interviews about the CQI process.

Planned Analysis

As a source of data for my assessment of feasibility, I extracted quantitative data from my various fidelity checklists (see Table 3) and summarized these findings reporting on the proportion of planned activities completed successfully. I enriched these summaries with

qualitative data analyzed using Graneheim and Lundman's (2004) approach, which I describe later in this section.

I conducted descriptive analyses on the ratings for the AIM, IAM, and FIM (Weiner et al., 2017) scales. Scores on these scales further informed my judgments over whether targeted CQI was perceived as acceptable, appropriate, and feasible. To the extent that it is possible without compromising participant confidentiality or anonymity, I also looked at the differences in perceptions across groups of participants by professional or personal background. This includes consideration of ethnicity, race, gender, sexual orientation, gender identity, etc.

I coded qualitative data from my interviews and forms using Graneheim & Lundman's (2004) four-step approach.

1. *Meaning unit identification*: I read and reviewed all responses to familiarize myself with the data and identify themes. I especially looked for themes that relate to barriers and facilitators to the CQI process and themes that relate to the feasibility, acceptability, and appropriateness of the CQI process.
2. *Create one set of codes*: I met with my advisor, Dr. Ignacio Acevedo-Polacovich, and discussed my findings and created a set of meaningful codes based on my findings.
3. *Review of emerging categories*: During my meeting with my advisor, I organized the themes into categories.
4. *Merging into analytical categories*: We reviewed the codes and renamed categories to be more descriptive. I also reorganized codes and categories as needed.

Quantitative and Qualitative Data Merging

The case study framework that I am using for my design allows me to collect both qualitative and quantitative data to build a comprehensive understanding of the feasibility of

targeted CQI in MSU CAMP (Fetters, Curry, & Creswell, 2013). To achieve this, I merged the data at the point of qualitative analysis, coding the information obtained through quantitative methods during my qualitative analysis. For example, summaries of FIM results would likely be coded alongside the qualitative comments regarding feasibility.

Results

Fidelity to PDSA

I completed the 7 (out of 8) components of CQI (see Fidelity Checklist in Table 3) that I had anticipated including in this project. Given that this was a time-limited feasibility case study, incorporating a sixth component--Iterative Development and Testing--was not part of my design.

I also successfully completed 10.5 out of the 12 components of PDSA, the specific CQI approach that I attempted to use. While I did create questions to focus on the present study, I did not create specific predictions. Also, given that I did not create predictions, I did not compare data to predictions. Taken together, these results suggest that I used CQI, broadly, and PDSA, specifically, with acceptable fidelity to their core components.

Participant Background

Six participants provided quantitative and qualitative data for this case study. Given the small number of participants, we provide limited demographic data to protect participant confidentiality. 5 out of 6 participants identified as male and one participant identified as female. Participants gave their age in ranges, and we can see participant responses in Table 5.

Individual Differences

Given that only six participants were included in this study, we did not look at the differences in perceptions across groups of participants by professional or personal background, so as to not compromise participant confidentiality or anonymity.

Table 5
Age of Respondents

Age	# of Participants
18 - 25	1
25 - 35	1
35 - 45	2
45 - 55	1
55 and above	1

Quantitative Ratings

Table 6
Respondent Ratings for AIM, IAM, and FIM Scales

	<i>n</i>	<i>M</i>	<i>SD</i>
AIM	6	4.667	.376
IAM	5	4.450	.798
FIM	6	4.625	.802

In Table 6, I summarize participant's post-test responses to the AIM, IAM, FIM scales to post interview participants. Participants' responses suggest that, on average, they completely agreed that targeted CQI was acceptable and feasible for their setting and purpose. Their average rating for appropriateness items fell between agreeing and completely agreeing.

Qualitative Interviews

Table 7
Theme Codes by File and Reference

Category Theme Subtheme	Files	References
Benefits of CQI		
<i>CQI can Guide Data-based Improvement</i>	4	11
<i>CQI is Easy to Adjust as Needed</i>	1	2
<i>CQI Doesn't Feel too Demanding</i>	2	3
<i>CQI Feels Easy to Use</i>	1	3
<i>CQI Works Well as Collaboration</i>	1	2
Acceptability of Targeted CQI		
<i>Acceptable because CQI allows for Improvement</i>	3	4
<i>Acceptable because CQI allows You to Make Data-based Decisions</i>	1	1
<i>Acceptable because CQI is not Demanding</i>	2	2
<i>Acceptable because CQI is not Hard to Accommodate</i>	1	1
<i>Yes Acceptable</i>	5	5
Appropriateness of Targeted CQI		
<i>Appropriate because CQI allows for Improvement</i>	3	3
<i>Appropriate because CQI doesn't Feel Demanding</i>	2	2
<i>Appropriate because CQI is Easy</i>	1	1
<i>Appropriate because CQI is Flexible</i>	1	1
<i>Yes Appropriate</i>	5	5

Table 7 (cont'd)

Feasibility of Targeted CQI		
<i>Feasible because CQI allows for Improvement</i>	2	2
<i>Feasible because CQI is Flexible</i>	1	1
<i>Feasible because CQI was Monitored</i>	1	1
<i>Feasible if there's Commitment to CQI from CAMP Administrators</i>	1	1
<i>Yes Feasible</i>	5	6
Improving Targeted CQI		
<i>Be Open to Growth and Development</i>	1	1
<i>Enact Some Recommendations</i>	1	4
<i>Need to Prepare for CQI</i>	2	2
<i>Need to Stay Consistent with CQI</i>	1	1
<i>Practitioners Need to be Committed</i>	1	1
<i>Target Attitudes and Commitment of Individuals</i>	1	1
Factors Impacting the Use of CQI		
<i>CAMP Leadership Needs to be Supportive</i>		
Attitudinal Support from CAMP Leadership	2	3
Followthrough Needed	2	2
Material Support from CAMP Leadership	2	2
Need Guidance from CAMP Leadership	1	1
<i>Importance of Community Engagement</i>	3	9
<i>Institution Needs to Support Assessment</i>		
Attitudinal Support from the Institution	5	8
Institutional Context	2	2
Material Support from the Institution	3	4

Table 7 (cont'd)

<i>Make Better Use of Data to Make More Data-informed Decisions</i>	1	1
<i>Need Someone to Guide CQI</i>	4	8
<i>Need to Understand what CQI Entails</i>		
Importance of Understanding What CQI Is	5	9
Methods of Getting People to Understand CQI	2	2
Need Understanding of Evaluation	1	1
What CQI can be Used For	3	4
What to Understand about CQI	4	4
What You get Out of Using CQI	2	3
Who Needs to Understand CQI	2	2
Barriers to CQI Use		
<i>Assessment is New at the Institution</i>	1	1
<i>CAMP Staff may not have Capacity at the Moment</i>	4	10
<i>High Partner Staff Turnover Rate</i>	1	2
<i>No or not Enough Funding</i>	3	5
<i>Time</i>		
May Clash with Timing of Regularly Scheduled Activities	2	3
May not Have Enough Time	4	5

Results

We organized participants' responses into 37 themes, with four of these accounting for 16 subthemes. We placed themes into seven content categories; (1) Benefits of CQI; (2) Factors Impacting CQI Use; (3) Barriers to CQI Use; (4) How to Improve the targeted CQI Process; (5) Acceptability of targeted CQI; (6) Appropriateness of Targeted CQI; and (7) Feasibility of targeted CQI. In Table 7, we summarize categories, themes, subthemes, and provide the number

references and files that contributed to each. In the following sections, organized by category, we describe each category and their component themes and subthemes, including representative sample responses.

Category 1: Benefits of CQI

This category includes participants' reports of benefits of using CQI. It includes five themes: (1) CQI can guide data-based improvement (e.g. "as we make decisions, I want to be able to say ... it has provided a guidance for me to make decisions."); (2) CQI is easy to adjust as needed (e.g. "... it is an approach to doing evaluation and improvement that can be modified to the resources and demands of each setting."); (3) CQI doesn't feel too demanding (e.g. "I think that it really doesn't feel too demanding ... I think that it's felt very doable."); (4) CQI feels easy to use (e.g. "... this process is easy. It's a friendly process."); and (5) CQI works well as a collaboration (e.g. "... it's part of a collaborative process that it works really well...").

Category 2: Acceptability of Targeted CQI

This category includes participants' thoughts on the acceptability of target CQI. It includes five themes: (1) acceptable because CQI allows for improvement (e.g. "It's ... a way for you to measure your services and ... get a clear understanding of what's working really good and what could use a little bit of improvement or fine tuning."); (2) acceptable because CQI allows you to make data-based decisions (e.g. "From what all of y'all have said, it has provided a guidance for me to make decisions."); (3) acceptable because CQI is not demanding (e.g. "I think that the appeal is that it's not such a demand."); (4) acceptable because CQI is not hard to accommodate (e.g. "... it's definitely an easy accommodation for ... whatever it is that we're doing at that point in time."); and (5) yes acceptable (e.g. "... it's almost difficult to argue that it's not accessible. It does all the work of being accessible...").

Category 3: Appropriateness of Targeted CQI

This category includes participants' thoughts on the appropriateness of targeted CQI. It includes five themes: (1) appropriate because CQI allows for improvement (e.g. "It's definitely a way to see how we could be better as programs, how we could better support students, and see where we could ... improve on."); (2) appropriate because CQI doesn't feel demanding (e.g. "I think that it really doesn't feel too demanding..."); (3) appropriate because CQI is easy (e.g. "... this process is easy. It's a friendly process."); (4) appropriate because CQI is flexible (e.g. "... it has a structure, and ... it has some flexibility to accommodate for different resources and conditions."); and (5) yes appropriate (e.g. "... I believe it is a good match and it is a good match for them to continue using it here ...").

Category 4: Feasibility of Targeted CQI

This category includes participants' thoughts on the feasibility of targeted CQI. It includes five themes: (1) feasible because CQI allows for improvement (e.g. "I think it would be feasible, cause I think that there's a lot of things that the programs want to know."); (2) feasible because CQI is flexible (e.g. "... that's almost an eminently accessible way of doing things, because it even allows you to adjust."); (3) feasible because CQI was monitored (e.g. "I think that with having the process laid out and ... an understanding of the CQI process ... I think that that it would be possible..."); (4) feasible if there's commitment to CQI from CAMP administrators (e.g. "... it's a process that's not too difficult and all you need is some understanding from the different CAMP administrators and understanding and commitment to want to improve."); and (5) yes feasible (e.g. "... they have the parameters that they have to follow, so I don't see why it wouldn't be something feasible or doable for other CAMP programs.").

Category 5: Improving Targeted CQI

This category includes participants' reports of how to improve the targeted CQI process. It includes six themes: (1) be open to growth and development (e.g. "... look for ways to improve it ... Or keep an open mind to growth and development with CQI..."); (2) enact some recommendations (e.g. "The process rendered this, let's try ... this little piece and see where it takes us."); (3) need to prepare for CQI (e.g. "... we needed to spend a little bit more time on the front end... to have ... [a] better understanding of ... the CQI process, this is what we're going to look at, these are the parameters of the project that we're going to do."); (4) need to stay consistent with CQI (e.g. "... when you think of the process being something that should be continuous, that should be a little more on a consistent basis..."); (5) practitioners need to be committed (e.g. "... it's gonna come down to how committed where the two leaders to it happening."); and (6) target attitudes and commitment of individuals (e.g. "There are interventions that you can do that are targeted at the attitudes and commitment of the individual ... not as recipients of the intervention, but as hosting the intervention...").

Category 6: Factors Impacting the Use of CQI

This category includes participants' reports of factors impacting CQI, acting both as a facilitator--when present--and barrier--when absent. It includes six themes: (1) CAMP leadership needs to be supportive; (2) importance of community engagement (e.g. "It's gotta be broken down in a way that allows everyone involved to get a full understanding of its purpose, the duration of it..."); (3) institution needs to support assessment; (4) make better use of data to make more data-informed decisions (e.g. "... I'm basing this, not on my gut feeling, but from listening to all of y'all ... it has provided a guidance for me to make decisions."); (5) need

someone to guide CQI (e.g. “ I think if they were to select an individual ... hiring a person to do this type of work, it will be so successful.”); and (6) need to understand what CQI entails.

Three of these themes included subthemes. The theme ‘CAMP leadership needs to be supportive’ included four subthemes: (1) attitudinal support from CAMP leadership (e.g. “... you gotta have institutions that are supportive of CAMP ... and not just the institutions, but the administrators, from director, to associate director...”); (2) followthrough needed (e.g. “... the main thing is the commitment of those practitioners to the outcomes of the process, and following through.”); (3) material support from CAMP leadership (e.g. “... just sometimes the time and the resources to do that.”); and (4) need guidance from CAMP leadership (e.g. “... it's leadership ... the CAMP leadership is having a plan for it, how it will be implemented, how we're gonna do it... making sure that we do all the right steps ...”).

The theme ‘institution needs to support assessment’ included three subthemes: (1) attitudinal support from the institution (e.g. “... is there interest? ... every institution of higher learning should be interested in growth and development.”); (2) institutional context (e.g. “... [talking about CQI] a lot of it might align much more with ... an institution like MSU... versus maybe a CAMP program that's in a community college.”); and (3) material support from the institution (e.g. “... having institutional support, having buy-in from the institution to support our existence...”).

Finally, the theme ‘need to understand what CQI entails’ included seven subthemes: (1) importance of understanding what CQI is (e.g. “... just being more informed than what CQI is, I think that's the work.”); (2) methods of getting people to understand CQI (e.g. “If you're able to share this is what it is, this is how long it takes, this is how it's broken down. ”); (3) need understanding of evaluation (e.g. “... there's another piece also that comes into understanding

assessments and people's training and understanding of them.”); (4) what CQI can be used for (e.g. “... they can use it for the research. They can use it when they're looking for grants...”); (5) what to understand about CQI (e.g. “You need to have several discussions about what's going to happen, and when, and where, and how, and why.”); (6) what you get out of using CQI (e.g. “The biggest thing ... would be just transparency, and sharing, and letting the university know how this is beneficial, and what it could potentially produce for the better of the program.”); and (7) who needs to understand CQI (e.g. “... ensure that everybody involved is also a part of that process before jumping into the implementation piece of it.”).

Category 7: Barriers to CQI Use

This category includes participants’ reports of factors that acted as barriers to CQI. It includes five themes: (1) assessment is new at the institution (e.g. “... I think that at least here, the whole concept of assessment and data collection is fairly new ... ”); (2) CAMP staff may not have capacity at the moment (e.g. “[referring to CAMP staff] ... maybe they're so busy that they can't fully commit to ... the coordination of CQI ... Maybe they just don't have the bandwidth or capacity to fully take on CQI and the entire process.”); (3) high partner staff turnover rate (e.g. “... we're not always working with the same partners. People, positions, and everything change often.”); (4) no or not enough funding (e.g. “... part of the decision of the type of assessment methods that are utilized, oftentimes is dependent on budgets.”); and (5) time.

One of these themes included subthemes. The theme ‘time’ included two subthemes: (1) may clash with timing of regularly scheduled activities (e.g. “... sometimes you're very limited to time and being able to do ... things that are outside job description.”); and (2) may not have enough time (e.g. “I think that type of factors is really the time constraints. For them feeling comfortable that this is not going to be an exorbitant amount of time for them to participate in.”).

Discussion

Young people from migrant farmworking families in the U.S. face significant challenges to their success in higher education. Higher education ISS supports these students in overcoming said challenges by facilitating students' efforts to meet their academic and non-academic needs. Participation in CAMP, a specific approach to ISS focused on migrant farmworking students, is associated with improved academic outcomes among these students. Nevertheless, there is variance in the effectiveness of CAMP across sites. There is a need for interventions that can support all CAMP sites in achieving positive outcomes. CQI has demonstrated impacts on the enhancement of higher education ISS. Unfortunately, the version of CQI that has been studied in higher education is complex, extensive, and resource intensive (ATD, 2018). This limits its accessibility to CAMPs with the required resources.

A less resource intensive, more targeted form of CQI might still be beneficial to CAMP programs yet be more accessible to those among them that have more limited resources. As a foundational step for the more comprehensive study of this approach, I examined: (1) whether a targeted CQI approach could be used in a CAMP site; (2) whether key community partners involved in the targeted CQI process perceived it as a feasible, acceptable, and appropriate; (3) whether its incorporation lead to structural/procedural changes in the manner CAMP is offered (process impacts); and (4) barriers and facilitators to the use of targeted CQI.

To answer these questions, I conducted a CBPR mixed methods case study. Over the course of a year, I collaborated with a CAMP site to complete one cycle of a specific form of targeted CQI, and then use qualitative and quantitative approaches to examine the perceptions of CAMP staff and administrators involved in this case study. Results suggest that targeted CQI was feasible, acceptable and appropriate, highlighted some potential benefits of CQI, and identified

factors influencing its use. In each subsection below, I present answers to my four research questions. After this, I discuss the implications of my findings for research and practice.

Can a Targeted CQI Approach be Used in CAMP?

All of the data that I collected during this study suggests that targeted CQI can be used in CAMP. I was able to use a targeted CQI protocol with relatively high fidelity, completing 7 (out of 8) components of CQI (see Fidelity Checklist in Table 3) and 10.5 out of 12 components of PDSA (the specific CQI approach that I used; see Table 3). CAMP staff and administrators agreed that targeted CQI could be used in CAMP (see next section for more details). These findings highlight the feasibility of a targeted, tailored, and thoughtful CQI approach in CAMPs. This approach can serve as a more accessible and less resource intensive alternative to the currently-available, more complex and resource intensive, approaches to CQI (ATD, 2018).

Do Key Community Partners Perceive targeted CQI as Feasible, Acceptable, and Appropriate?

Feasibility

Quantitative and qualitative results suggest that CAMP administrators and staff perceived targeted CQI as feasible. The average rating on the Feasibility of Interventions Measure (FIM; Weiner et al., 2017) was 4.625 (.802), suggesting that--on average--they completely agreed with each of the items on the measure. In qualitative responses, participants' clarified that CQI was feasible because it allows for improvement and is flexible. These results highlight that participants perceived that targeted CQI could be reasonably used in CAMPs.

Acceptability

Quantitative and qualitative results suggest that CAMP administrators and staff perceived targeted CQI as acceptable. The average rating on the Acceptability of Interventions Measure

(Weiner et al., 2017) was 4.667 (.376), suggesting that--on average--they completely agreed with each of the items on the measure. In qualitative responses, participants' clarified that CQI was acceptable because it allows for improvement, allows for data-based decisions, is not demanding, and is not hard to accommodate.

Appropriateness

Quantitative and qualitative results suggest that CAMP administrators and staff perceived targeted CQI as appropriate. The average rating on the Interventions Appropriateness Measure (IAM; Weiner et al., 2017) was 4.450 (.798), suggesting that--on average--they agreed with each of the items on the measure. In qualitative responses, participants' clarified that CQI was appropriate because it allows for improvement, doesn't feel demanding, and because it is easy and flexible.

Collectively, current findings support the argument that CAMP administrators and staff perceived targeted CQI as feasible, acceptable, and appropriate. Participants highlighted that targeted CQI seemed easily adaptable to different contexts. However, participants' noted two important qualifications regarding the feasibility, acceptability, and appropriateness of targeted CQI. First, that its ease of use is related to it being facilitated by a third party not involved in CAMP. Second, that CAMP administrators were committed to targeted CQI. Findings align with those of other scholars who've suggested that the success of CQI is impacted by having guidance available on its use and by the support of decision makers (Hill et al., 2020). Therefore, it seems like targeted CQI can be used in CAMPs that do not have the resources required for broader, holistic, and transformational CQI (e.g., ATD, 2018, 2020) as long as administrators are supportive of targeted CQI and it is facilitated by a third party uninvolved in CAMP.

Does the Incorporation of Targeted CQI Lead to Structural/Procedural Changes in the Manner CAMP is Offered to Students?

Guided by targeted CQI, CAMP staff and administrators developed a plan for relevant structural changes involving additions to the CAMP orientation (see Appendix D for a memorandum summarizing these changes). That said, decisions made by upper-level administrators at the university in which this CAMP is located forced reductions to the expected length of said orientation, preventing these changes from taking place. The influences of factors that are outside of the control of individuals involved in efforts for change are widely documented (Damschroder et al., 2022). Although it remains likely that the successful execution of targeted CQI could lead to structural or procedural changes in CAMPs, this possibility should be tested in contexts where such outside factors are more stable.

Barriers and Facilitators to the Use of Targeted CQI

I identified 11 themes in participants' discussion of factors impacting the use of targeted CQI. Six of these--'CAMP leadership needs to be supportive,' 'importance of community engagement,' 'institution needs to support assessment,' 'make better use of data to make more data-informed decisions,' 'need someone to guide CQI,' and 'need to understand what CQI entails'--captured factors that facilitate use when present and were an obstacle to use when absent. The five remaining--'assessment is new at the institution,' 'CAMP staff may not have capacity at the moment,' 'high partner staff turnover rate,' 'no or not enough funding,' and 'time.'--captured factors that were only described as obstacles to the use of targeted CQI. From a practical point of view, these factors should be considered by researchers or practitioners who wish to implement targeted CQI in other CAMP settings and point to conditions that should be ensured or avoided.

Implications for Future Research

In this case study, I demonstrated that targeted CQI was feasible, acceptable, and appropriate for use in CAMP, while also broadly identifying barriers and facilitators to its use. Researchers can build from these findings in several important ways. First, by examining whether targeted CQI leads to structural/procedural changes in the manner CAMP is offered to students and/or students' outcomes. In a traditional understanding of intervention testing (e.g. Kandi & Vadakedath, 2023), studies that establish that an intervention--previously supported by foundational research--is acceptable, appropriate, and feasible, set the foundation for studies testing the effects of an interventions, mediators moderators thereof, and--ultimately--the best strategies for implementation for each setting characteristic (Kemp et al., 2019). This often involves the recruitment of increasingly representative samples and the use of designs that are more adequate for identifying causal relations, dose-response curves, mediators, and moderators of an intervention's effectiveness (Kemp et al., 2019). In this area of research, researchers should expand to larger samples that are more representative of the range of conditions across CAMPs (e.g., Willison & Jang, 2009) and also incorporate quasi-experimental and experimental designs that are appropriate for the testing of causal relations (Nogueira et al., 2022).

Second, researchers might particularly benefit from using hybrid designs, which allow for the testing and refinement of interventions to occur alongside the identification of factors and interventions that facilitate implementation in new settings (Kemp et al., 2019). For example, in a Type 1 hybrid design (Kemp et al., 2019), researchers might explore the impacts of targeted CQI on CAMPs, comparing these across CAMP characteristics, and beginning to identify implementation strategies that best align with these setting characteristics.

Finally, in the present case study I identified 11 factors or practices that participants' believed impact the use of targeted CQI. This is an important foundation that could be significantly expanded by employing conceptual frames provided by implementation scientists in the design of future studies. For example, the Exploration, Preparation, Implementation, Sustainment (EPIS) framework (Aarons et al., 2011) highlights four phases--Exploration, Preparation, Implementation, and Sustainment--that guide and describe the implementation process and enumerates factors within and across phases (Aarons et al., 2011). EPIS might provide researchers with insights into the specific periods of implementation where certain factors are relevant. Similarly, researchers can incorporate the Consolidated Framework for Implementation Research (CFIR; Damschroder et al., 2022). CFIR is a practical framework used to map barriers and facilitators to implementation effectiveness and can be used to "inform choice of implementation strategies" or to "retrospectively explain implementation outcomes" (Damschroder et al., 2022, p. 2). CFIR can help guide scholars toward a more comprehensive consideration of the full breadth of factors that can impact the implementation of targeted CQI.

Implications for Practice

Targeted CQI is Feasible, Accessible, and Appropriate

As I noted in the preceding section, this study lays the foundation for increasingly rigorous and large-scale research into the effects of targeted CQI on CAMPs, and into the strategies that might facilitate the use of targeted CQI in CAMPs across a range of settings. Certainly, initial case studies such as mine tend to primarily render implications for research (Kandi & Vadakedath, 2023). Nevertheless, I did demonstrate that targeted CQI is feasible, acceptable, and appropriate for use in CAMP, also broadly identifying factors associated with its use. Although such findings may offer CAMP practitioners who wish to use targeted CQI some

measure of comfort, it is certainly important to consider that this study represents a very early level of development in research.

Limitations

The findings from this study will transfer most readily to settings that closely resemble those in which my study was conducted (Pearl & Bareinboim, 2022). Most immediately, they may transfer to MSU CAMP programming in future years. They may also transfer to settings similar to MSU CAMP, such as residential CAMPS at other higher education institutions. As CAMP sites increase in differences, findings may be less transferable. For instance, the findings may transfer less readily to CAMPS that are non-residential, or located in community colleges. Future studies that examine the use of targeted CQI in other CAMP contexts would be useful.

To assess fidelity to CQI and PDSA, I completed behavioral checklists either when behaviors were occurring or within a period of minutes thereafter. Such checklists are less likely to be influenced by recollection biases yet are not immune from other biases, such as those related to rater expectations (e.g., Martell & Evans, 2005; Walfish et al., 2012). These other biases could have led me to overestimate my completion of the behaviors included in the CQI and PDSA checklists. In future studies, researchers can limit the possibility of these additional biases by having an individual who is not privy to the goals of the research nor involved in the delivery of CQI or PDSA complete observational checklists.

It is also important to recognize that I focused on the perspectives of CAMP practitioners and their experiences. There are other important groups, notably CAMP students, whose experiences impact CAMP. Future studies could examine whether the experiences of students are impacted by targeted CQI.

As I noted, this study sets the foundation for research into the effects of targeted CQI in

CAMPs and into the strategies that might augment the use of targeted CQI in CAMPs across different settings.

Conclusion

Researchers have found that CAMP, an ISS strategy focused on migrant farmworking college students, successfully promotes their higher education enrollment, retention, and graduation (Ramirez, 2012; Willison & Jang, 2009). Nevertheless, impacts vary across sites (Willison & Jang, 2009). The implementation of CQI in CAMP sites might promote more even impacts across sites. However, the many resources required by the version of CQI that professionals have developed for higher education ISS are a significant barrier to its use (ATD, 2018). In this study, I established the feasibility, acceptability, and appropriateness of a more accessible, targeted version of CQI. As such, I've laid the foundation for more extensive effectiveness and implementation research that can benefit not only migrant farmworking college students, but also other populations of students whose higher education engagement and success is more likely with access to high quality ISS.

REFERENCES

- Acevedo-Polakovich, I.D. (chair) (October, 2019). *Migrant Farmworkers and Education: Examining strengths, needs, services, and supports*. Symposium conducted at the 2019 Conference of the National Latinx Psychological Association. Miami, FL.
- Acevedo-Polakovich, I. D., Crider, E. A., Kassab, V. A., & Gerhart, J. I. (2011). Increasing service parity through organizational cultural competence. In *Creating infrastructures for Latino mental health* (pp. 79-98). Springer, New York, NY.
- Acevedo-Polakovich, I.D., & Nordquist, E.A. (2017). *MSU College Assistance for Migrants Program (CAMP): 2017 External Evaluation Report*. East Lansing, MI: Community-Academic Innovation and Dissemination Laboratory at Michigan State University.
- Acevedo-Polakovich, I.D., Normand, M.M., Lopez, E., Salas, L., Hernandez, D., & Garcia, L.A. (2022). *Core Components of successful College Assistance for Migrants Programs: A content and methodological review*. Manuscript submitted for publication.
- Achieving the Dream. (2018). *Implementing a holistic student supports approach: Four case studies*. Achieving the Dream.
https://achievingthedream.org/wp-content/uploads/2022/05/hss_wssn_case_study.pdf
- Achieving the Dream. (2020). *Holistic student supports redesign: A toolkit for redesigning advising and student services to effectively support every student*. Achieving the Dream.
https://www.achievingthedream.org/wp-content/uploads/2018/10/atd_hss_redesign_toolkit_2018.pdf
- Aarons, G. A., Hurlburt, M., & Horwitz, S. M. (2011). Advancing a conceptual model of evidence-based practice implementation in public service sectors. *Administration and policy in mental health and mental health services research*, 38, 4-23.
- Araujo, B. (2011). The college assistance migrant program: A valuable resource for migrant farmworker students. *Journal of Hispanic higher education*, 10(3), 252-265.
- Bennett, C. J., Kinney, S., & Mattachione, S. E. (2015). Achieving MHA program alignment using PDSA rapid improvement cycles. *The Journal of Health Administration Education*, 32(3), 359.
- Bourdieu, P., & Passeron, J. C. (1977). *Reproduction in education, society and culture* (Vol. 4). Sage.
- Bowen, D. J., Kreuter, M., Spring, B., Cofta-Woerpel, L., Linnan, L., Weiner, D., Bakken, S., Kaplan, C. P., Squiers, L., Fabrizio, C., & Fernandez, M. (2009). How we design feasibility studies. *American Journal of Preventive Medicine*, 36(5), 452-457.
<https://doi.org/10.1016/j.amepre.2009.02.002>

- Cabán, P. A. (2003). From challenge to absorption: the changing face of Latina and Latino Studies. *Centro Journal*, 15(2), 126-145.
- Carnevale, A. P., & Fasules, M. L. (2017). *Latino education and economic progress: Running faster but still behind*. The Georgetown University Center on Education and the Workforce.
<https://1gyhoq479ufd3yna29x7ubjn-wpengine.netdna-ssl.com/wp-content/uploads/Latinos-FR.pdf>
- Coursen-Neff, Z., & Becker, J. (2010). *Fields of peril: Child labor in US agriculture*. Human Rights Watch. https://www.hrw.org/sites/default/files/reports/crd0510webwcover_1.pdf
- Curran, G. M., Bauer, M., Mittman, B., Pyne, J. M., & Stetler, C. (2012). Effectiveness-implementation hybrid designs: combining elements of clinical effectiveness and implementation research to enhance public health impact. *Medical care*, 50(3), 217-226.
- Damschroder, L. J., Reardon, C. M., Widerquist, M. A. O., & Lowery, J. (2022). The updated Consolidated Framework for Implementation Research based on user feedback. *Implementation science*, 17(1), 75.
- Domínguez-Rebollar, R., Lopez, R., Gruber, J., Normand, M., Acevedo-Polakovich, I. (June, 2019). Identifying Effective Components for College Assistance Migrant Programs. Poster presented at the 17th Society for Community Research and Action Biennial Conference, Chicago, IL.
- Escamilla, A., & Trevino, N. G. (2014). An investigation of the factors contributing to successful completion of undergraduate degrees by the students enrolled in the College Assistance Migrant Program. *Journal of Hispanic Higher Education*, 13(3), 158-176.
- Federal Student Aid. (n.d.). *What are graduation, retention, and transfer rates?* Federal Student Aid. <https://faaaccess.ed.gov/help/fotw91n.htm>
- Fetters, M. D., Curry, L. A., & Creswell, J. W. (2013). Achieving integration in mixed methods designs—principles and practices. *Health services research*, 48(6pt2), 2134-2156.
- Graneheim, U. H., & Lundman, B. (2004). Qualitative content analysis in nursing research: Concepts, procedures and measures to achieve trustworthiness. *Nurse Education Today*, 24(2), 105-112.
- Green, P. (2003). The undocumented: Educating the children of migrant workers in America. *Bilingual Research Journal*, 27 (1), 51-71.
- Hernandez, T., & Gabbard, S. (2018). *Findings from the National Agricultural Workers Survey (NAWS) 2015-2016: A Demographic and Employment Profile of United States Farmworkers*. JBS International.

https://www.dol.gov/sites/dolgov/files/ETA/naws/pdfs/NAWS_Research_Report_13.pdf

- Hernandez, M., Nesman, T., Mowery, D., Acevedo-Polakovich, I. D., & Callejas, L. M. (2009). Cultural competence: A literature review and conceptual model for mental health services. *Psychiatric services, 60*(8), 1046-1050.
- Hill, J. E., Stephani, A. M., Sapple, P., & Clegg, A. J. (2020). The effectiveness of continuous quality improvement for developing professional practice and improving health care outcomes: A systematic review. *Implementation Science, 15*(1), 1-14. <https://doi.org/10.1186/s13012-020-0975-2>
- Kandi, V., & Vadakedath, S. (2023). Clinical trials and clinical research: a comprehensive review. *Cureus, 15*(2).
- Kemp, C. G., Wagenaar, B. H., & Haroz, E. E. (2019). Expanding hybrid studies for implementation research: intervention, implementation strategy, and context. *Frontiers in Public Health, 7*, 491623.
- Knudsen, S. V., Laursen, H. V. B., Johnsen, S. P., Bartels, P. D., Ehlers, L. H., & Mainz, J. (2019). Can quality improvement improve the quality of care? A systematic review of reported effects and methodological rigor in plan-do-study-act projects. *BMC Health Services Research, 19*(1), 1-10. <https://doi.org/10.1186/s12913-019-4482-6>
- López, G. R., Scribner, J. D., & Mahitivanichcha, K. (2001). Redefining parental involvement: Lessons from high-performing migrant-impacted schools. *American Educational Research Journal, 38*(2), 253-288.
- Luedke, C. L. (2017). Person first, student second: Staff and administrators of color supporting students of color authentically in higher education. *Journal of College Student Development, 58*(1), 37-52.
- Ma, J., & Baum, S. (2016). *Trends in community colleges: Enrollment, prices, student debt, and completion*. The College Board. <https://research.collegeboard.org/media/pdf/trends-community-colleges-research-brief.pdf>
- Martell, R. F., & Evans, D. P. (2005). Source-monitoring training: toward reducing rater expectancy effects in behavioral measurement. *Journal of Applied Psychology, 90*(5), 956-963.
- Mendez, J. J., & Bauman, S. (2018). From migrant farmworkers to first generation Latina/o students: Factors predicting college outcomes for students participating in the College Assistance Migrant Program. *The Review of Higher Education, 42*(1), 173-208.
- Minkler, M. Salvatore, A. L., & Chang, C. (2018). Participatory approaches for study design and analysis in dissemination and implementation research. In R.C. Brownson, G.A. Colditz,

- & E.K. Proctor (Eds.), *Dissemination and implementation research in health: Translating science to practice* (pp.175-190). New York, NY: Oxford.
- Moen, R. (2009, September). Foundation and History of the PDSA Cycle. In *Asian network for quality conference. Tokyo*. https://www.deming.org/sites/default/files/pdf/2015/PDSA_History_Ron_Moen.Pdf.
- Morse, J. M. (1991). Approaches to qualitative-quantitative methodological triangulation. *Nursing Research*, 40(2), 120-123.
- National Center for Education Statistics. (2021a). *Digest of Education Statistics, 2020*. National Center for Education Statistics. https://nces.ed.gov/programs/digest/d20/tables/dt20_306.20.asp
- National Center for Education Statistics. (2021b). *Digest of Education Statistics, 2021*. National Center for Education Statistics. https://nces.ed.gov/programs/digest/d21/tables/dt21_326.10.asp?current=yes
- National Center for Education Statistics. (2021c). *Digest of Education Statistics, 2021*. National Center for Education Statistics. https://nces.ed.gov/programs/digest/d21/tables/dt21_326.20.asp?current=yes
- Noe-Bustamante, L. (2020, April 17). *Education levels of recent Latino immigrants in the U.S. reach new highs*. Pew Research Center. <https://www.pewresearch.org/fact-tank/2020/04/07/education-levels-of-recent-latino-immigrants-in-the-u-s-reached-new-highs-as-of-2018/>
- Nogueira, A. R., Pugnana, A., Ruggieri, S., Pedreschi, D., & Gama, J. (2022). Methods and tools for causal discovery and causal inference. *Wiley interdisciplinary reviews: data mining and knowledge discovery*, 12(2), e1449.
- Normand, M. M., Domínguez-Rebollar, R., Lopez, M. R., & Acevedo-Polakovich, I. D. (2019). *MSU College Assistance for Migrants Program (CAMP) 2019 Evaluation: Formative Review Report*. East Lansing, MI: Community-Academic Innovation and Dissemination Laboratory at Michigan State University.
- Nuñez, A. M. (2009). A critical paradox? Predictors of latino students' sense of belonging in college. *Journal of diversity in higher education*, 2(1), 46.
- Ornelas-González, A. (2010). Support for success: An exploration of the support networks of Latino students in the college assistance migrant program. *McNair Scholars Research Journal*, 6(1), 14.
- Pearl, J., & Bareinboim, E. (2022). External validity: From do-calculus to transportability across populations. In *Probabilistic and causal inference: The works of Judea Pearl* (pp. 451-482).

- Potter, M. R., Gruber, J.A., & Acevedo-Polakovich, I.D. (2022). *MSU College Assistance for Migrants Program (CAMP): 2022 External Evaluation Report*. East Lansing, MI: Community-Academic Innovation and Dissemination Laboratory at Michigan State University.
- Proctor, E. K., Landsverk, J., Aarons, G., Chambers, D., Glisson, C., & Mittman, B. (2009). Implementation research in mental health services: An emerging science with conceptual, methodological, and training challenges. *Administration and Policy in Mental Health and Mental Health Services Research*, 36(1), 24-34.
<https://doi.org/10.1007/s10488-008-0197-4>
- Proctor, E., Silmere, H., Raghavan, R., Hovmand, P., Aarons, G., Bunger, A., Griffey, R., & Hensley, M. (2011). Outcomes for implementation research: Conceptual distinctions, measurement challenges, and research agenda. *Administration and Policy in Mental Health and Mental Health Services Research*, 38(2), 65-76.
<https://doi.org/10.1007/s10488-010-0319-7>
- Ramirez, A. D. (2012). The impact of the college assistance migrant program on migrant student academic achievement in the California State University system. *Journal of Hispanic Higher Education*, 11(1), 3-13.
- Rubenstein, L., Khodyakov, D., Hempel, S., Danz, M., Salem-Schatz, S., Foy, R., O'Neill, S., Dalal, S., & Shekelle, P. (2014). How can we recognize continuous quality improvement?. *International Journal for Quality in Health Care*, 26(1), 6-15.
<https://doi.org/10.1093/intqhc/mzt085>
- Sayah, H., & Khaleel, A. (2022). The application of accreditation standards institutional Iraqi in Iraqi universities using Deming Cycle (PDSA)" an applied study in the colleges of Sumer University–Iraq. *Proceedings on Engineering*, 4(1), 23-32.
- Solorzano, D., Ceja, M., & Yosso, T. (2000). Critical race theory, racial microaggressions, and campus racial climate: The experiences of African American college students. *Journal of Negro education*, 60-73.
- Solórzano, D. G., & Yosso, T. J. (2002). Critical race methodology: Counter-storytelling as an analytical framework for education research. *Qualitative inquiry*, 8(1), 23-44.
- Taylor, M. J., McNicholas, C., Nicolay, C., Darzi, A., Bell, D., & Reed, J. E. (2014). Systematic review of the application of the plan–do–study–act method to improve quality in healthcare. *BMJ Quality & Safety*, 23(4), 290-298.
<http://doi.org/10.1136/bmjqs-2013-001862>
- Teddlie, C., & Yu, F. (2007). Mixed methods sampling: A typology with examples. *Journal of Mixed Methods Research*, 1, 77–100.
- Tinto, V. (1975). Dropout from higher education: A theoretical synthesis of recent research.

Review of educational research, 45(1), 89-125.

Weiner, B. J., Lewis, C. C., Stanick, C., Powell, B. J., Dorsey, C. N., Clary, A. S., Boynton, M. H., & Halko, H. (2017). Psychometric assessment of three newly developed implementation outcome measures. *Implementation Science*, 12(1), 1-12.
<https://doi.org/10.1186/s13012-017-0635-3>

Willison, S., & Jang, B. S. (2009). Are federal dollars bearing fruit? An analysis of the College Assistance Migrant Program. *Journal of Hispanic Higher Education*, 8(3), 247-262.

Yosso, T. J. (2005). Whose culture has capital? A critical race theory discussion of community cultural wealth. *Race ethnicity and education*, 8(1), 69-91.

Zalaquett, C. P., Alvarez McHatton, P., & Cranston-Gingras, A. (2007). Characteristics of Latina/o migrant farmworker students attending a large metropolitan university. *Journal of Hispanic Higher Education*, 6(2), 135-156.

APPENDIX A

MEASURES FOR DISSERTATION STUDY

Acceptability of Intervention Measure (AIM; Weiner et al., 2017)

Rate on scale from 1 (completely disagree) to 5 (completely agree)

- 1) The targeted CQI process meets my approval.
- 2) The targeted CQI process is appealing to me.
- 3) I like the targeted CQI process.
- 4) I welcome the targeted CQI process.

Intervention Appropriateness Measure (IAM; Weiner et al., 2017)

Rate on scale from 1 (completely disagree) to 5 (completely agree)

- 1) The targeted CQI process seems fitting.
- 2) The targeted CQI process seems suitable.
- 3) The targeted CQI process seems applicable.
- 4) The targeted CQI process seems like a good match.

Feasibility of Intervention Measure (FIM; Weiner et al., 2017)

Rate on scale from 1 (completely disagree) to 5 (completely agree)

- 1) The targeted CQI process seems implementable.
- 2) The targeted CQI process seems possible.
- 3) The targeted CQI process seems doable.
- 4) The targeted CQI process seems easy to use.

APPENDIX B

QUALITATIVE INTERVIEW QUESTIONS

Plan Phase

- Do you know what the Continuous Quality Improvement (CQI) cycle is?
 - Is yes: Can you explain in your own words what the Continuous Quality Improvement (CQI) cycle is?
 - Also explain that we will be using targeted CQI.
 - If no: Explain what Continuous Quality Improvement (CQI) cycle is.
 - Also explain that we will be using targeted CQI.
- The leadership of CAMP has identified IEM participation as a crucial point in CAMP student engagement, and would like us to explore ways in which some of the type of engagement that happens through IEM may be brought into the Fall semester. What are your thoughts about this area of improvement? [prompt for reactions, barriers, etc.]
- What additional potential improvements to CAMP would you recommend that we explore?
- What are some barriers, facilitators, problems, challenges, strengths, weaknesses, recommendations, and considerations that you think we should take into account when using targeted CQI?

Study Phase

- Any questions about the memo that you just read? Can I clarify or expand on anything?
- Any questions about CQI or how it was implemented in CAMP?
- (Feasibility Prompt). Based on what you know, how realistic do you think it is for CQI to be implemented in other CAMPs?
 - Can you explain why you think that?
- (Appropriateness Prompt). Do you think CQI is a good match for CAMP programs?
 - Why or why not?
- (Acceptability Prompt) As someone who has an important role in CAMP, how appealing is CQI to you?
 - Can you explain why you think that?

- What are some factors/conditions that might make it challenging for CAMP programs to implement CQI?
 - Factors related to the individuals who lead and/or work with CAMP.
 - Factors related to the institutions or settings that CAMP is housed in.
 - Factors related to CQI itself.
 - Factors related to implementing/learning CQI.
- What are some factors/strategies that would make it easier for CAMP programs to implement CQI?
 - Factors related to the individuals who lead and/or work with CAMP.
 - Factors related to the institutions or settings that CAMP is housed in.
 - Factors related to CQI itself.
 - Factors related to implementing/learning CQI.
- How could we have improved the targeted CQI process?

APPENDIX C

DEMOGRAPHICS FORM

- Age (choose one)
 - 18 - 25
 - 25 - 35
 - 35 - 45
 - 45 - 55
 - 65 and above
- Ethnicity (open ended)
- Race (open ended)
- Gender (open ended)
- Sexual orientation (open ended)
- Highest level of Education completed (dropdown)
 - Less than high school
 - High school
 - Associate or technical degree
 - Bachelor's degree
 - Masters degree or masters equivalent
 - Doctoral degree or doctorate equivalent
- Relationship to CAMP (checklist; please check all that apply)
 - Administrator
 - Staff member
 - Alumni
 - Other (let us know, if you feel comfortable)
- Years of involvement with CAMP (across all relationships with CAMP; open ended)
- To the best of your knowledge, how many CAMP students have you directly or indirectly served? (open ended)

APPENDIX D

CAMP MEMO

To: Luis Garcia, Elias Lopez
From: Rosaura Domínguez-Rebollar, Ignacio David Acevedo-Polakovich
Date: June 17th, 2023
Re: CAMP CQI Update

Dear Mr. Garcia and Mr. Lopez,

Our purpose with this memo is to summarize the results of our first cycle and expected directions of Continuous Quality Improvement (CQI) activities involving CAMP.

What We Did

To support your stated goals of:

1. Understanding what makes participation in the International Experience in Mexico (IEM) a crucial point in CAMP student engagement.
2. Exploring ways in which some of the type of engagement that happens at IEM could take place during the fall semester.

We:

1. Interviewed 6 faculty and staff involved with CAMP and IEM.
2. Conducted discussion groups with 9 CAMP students who participated in IEM during Spring 2023.

What We Found

What makes IEM so impactful for CAMP students?

1. The opportunity to engage with, and learn about, a culture and environment that overlaps with, but expands from, their own.
2. Forming relationships with people with varied backgrounds.
3. The opportunity to serve others and reflect on personal privilege.

How might CAMP students experience these impacts in the Fall semester?

Broadly, students can be offered (or required) a service learning experience that features the same three characteristics listed above.

What is the Plan Going Forward?

At a meeting with you and Ms. Patricia Joly on June 6th, 2023, you determined that the best course of action would be to *add a time-limited service learning project to the new CAMP student orientation.*

This project would have the following characteristics:

1. It would be preceded by a short training on service learning that parallels and primes the content that students will later experience in IEM.
2. To facilitate reflections on privilege and positionality, it would involve the

refugee or detainee populations that reside in the local area.

3. The project would be followed by a short reflection that parallels and primes those that students will later experience in IEM.

What is our Role Going Forward?

We will evaluate the perceived impact of this first cycle of CQI first by re-interviewing the staff and faculty that participated in our earlier interviews (after updating them on the findings and impact of our earlier work). These perceptions will meaningfully inform Ms. Domínguez-Rebollar's dissertation and will be shared with you (in an anonymized format).

Dr. Acevedo and the team at Community-AID remain at your service to support the implementation of a second cycle of CQI should this be helpful to you. At your request, this can include support coordinating the orientation service learning project, and support evaluating with the evaluation and continuous improvement thereof.