Making Sense of Data: An Examination of the Sensemaking Process in a Community College Data Inquiry Group

A dissertation submitted in partial satisfaction of the requirements for the degree Doctor of Philosophy in Education

by

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ABSTRACT OF THE DISSERTATION

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Doctor of Philosophy in Education

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Professor Christina A. Christie, Chair

Institutional leaders and administrators are being asked to use data, inquiry, and evidence to improve programming and make “evidence-based” and “data-informed” decisions to drive change. However, institutional data alone do not answer the questions that institutions are asking about student outcomes, equity, and achievement. To address this issue, institutions often rely on the creation of collaborative groups to engage in inquiry processes, develop data, and act to solve the problems that were identified. This descriptive single case study of one Guided Pathways program in a Southern California community college explores how faculty, administrators, and staff of a mature Guided Pathways program engaged in a year-long process to address the student equity gap in
achievement via the creation of two data-focused inquiry groups. This study contributes to our understanding of the learning and sensemaking processes in which higher education administrators and faculty engaged using data and the actions that resulted from their collaborative inquiry. It provides a perspective on how membership of a group matters, the ways in which personal and professional identities influence the individual and collective interpretation of data, which data are valued or abandoned, and how decisions to act are made. Although not generalizable, this study provides an example of how one community of practice developed, maintained, and made decisions as a group engaging in inquiry around data to address the equity gap in student achievement.
The dissertation of Adrienne Marie Dellinger is approved.

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2019
To my parents, Terri Keeler and Ford Dellinger, for allowing me to read books in the bedroom closet instead of play sports, and for fostering the unwavering belief I could do anything I set my mind to. To the love of my life, Zach Gonzalez-Landis, for your patience, never ending encouragement, and pushing me when I needed it most (which was all the time).
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CHAPTER 1

INTRODUCTION

Education is a potential mechanism for social change, upward mobility, and social equity, however racial and ethnic disparities in higher education enrollment and completion are well documented. As the entry into the education system for a large percentage of underrepresented students, community colleges are a key component in ensuring these youth can access higher education and achieve success in their chosen paths. Community colleges in the United States have seen shifts in enrollment trends over the last two decades, with White students enrolling at lower rates, dropping from a high of 60% in 2001 to 46% in 2017. In contrast, enrollment rates for Hispanic or Latino/a/x students have increased from approximately 14% in 2001 to nearly a quarter of all student enrollments in 2017. Based on raw numbers, the American Association of Community Colleges (AACC) reports Hispanic or Latino/a/x student enrollment nearly doubled, increasing by 98% in that time period, and was consistent in increasing every year. Other non-White groups represented smaller proportions of enrollment, with 13% identifying as Black, 6% as Asian and Pacific Islander, and 1% Native American, and have remained fairly stable in the last five years (American Association of Community Colleges [AACC], 2019). Although the number of underrepresented minority students enrolled in higher education are increasing, completion rates are not. According to a study of six-year completion rates of students who began postsecondary education in fall 2010, Asian and White students had a much higher completion rate (63% and 62%) than Hispanic or Latino/a/x and Black students (46% and 38%). This trend holds for students who started in two-year public institutions, with lower rates of completion for Hispanic or Latino/a/x
and Black students at 33% and 26%, respectively, compared to White (45%) and Asian (44%) students (Shapiro, Dundar, Huie, Wakhungu, Yuan, Nathan, & Hwang, 2017).

Research literature confirms that attainment barriers exist for members of traditionally underrepresented minority groups (Engle & Theokas, 2010; Jackson & Reynolds, 2013; Oseguera, 2005; Sólorzano, Villalpando & Oseguera, 2005), and that these achievement gaps in postsecondary college completion result in the inability of these groups to benefit in the same way as their peers (DeAngelo, Franke, Hurtado, Pryor, & Tran, 2011; Stevens, Kurlaender, & Grosz, 2015; Teranishi & Bezbatchenko, 2015). Across the nation, community colleges are implementing strategies, such as Guided Pathways programs, to address these barriers with a focus on increasing completion rates and closing the equity gap in achievement between Hispanic or Latino/a/x and Black students and their White and Asian peers. As the most populous state in the United States and the second most racially and ethnically diverse, California serves as a high-stakes testing ground for ways to affect change in postsecondary education reform. To this end, the California Community Colleges Chancellor’s Office (CCCCO) recently put forth their Vision for Success demanding community colleges in the state make a commitment to meet the needs of the students being underserved in their institutions and effectively close equity gaps in achievement.

California Community Colleges

California community colleges (CCCs) serve a critical role in training and educating residents to participate in the workforce, as well as provide adult education, apprenticeships, English as a Second Language, and opportunities for lifelong learning. One in five of all community college students in the United States attends a CCC (National Center for Education Statistics, 2015), and nationally California ranks fifth in the proportion of recent high school graduates who enroll in community college (Public Policy Institute of California Higher Education Center, 2016).
Approximately 60% of California undergraduates attend community college at some point in their academic career, which is 14% higher than the national average (Legislative Analyst’s Office, 2016). Of the 2.1 million students served by the CCCs, the majority are people of diverse ethnic backgrounds (67%), female (53%), and under the age of 24 (58%) (California Community Colleges Chancellor’s Office [CCCCO], 2017a).

Like community colleges across the nation, CCCs face significant challenges when it comes to student success and the equity gap in achievement persists. In fact, over half of the students (52%) who entered a CCC never reached their defined end goal of receiving a degree, certificate, or transferring within six years (CCCCO, 2017b). Of those who did reach their end goals, students often accumulated far more course units than needed, and took a significantly long time to do so – with an average of 5.2 years (median time of 3.8 years) to complete an associate degree.

Achievement across the CCCs is not equitable, with completion rates for Black students (36%), American Indian/Alaskan students (38%), Hispanic or Latino/a/x students (41%), and Pacific Islander students (43%) falling behind that of their Asian (65%), Filipino (57%), and White (54%) peers (CCCCO, 2017c).

In 2017, the Chancellor’s Office released the Vision for Success outlining six achievement goals for all 115 community colleges to reach by 2022. These goals aim to increase the number and percentage of students who reach a defined educational goal and decrease the amount of time and cost it takes them to do it, while addressing critical achievement gaps across students and regions.

The system-wide goals to achieve in five years include:

1) Increase by at least 20% the number of CCC students annually who acquire associate degrees, credentials, certificates, or specific skill sets that prepare them for an in-demand job;
2) Increase by 35% the number of CCC students system-wide transferring annually to a University of California (UC) or California State University (CSU);

3) Decrease the average number of units accumulated by CCC students earning associate degrees, from approximately 87 total units (the most recent system-wide average) to 79 total units;

4) Increase the percent of exiting career and technical education (CTE) students who report being employed in their field of study, from the most recent statewide average of 60% to 69%;

5) Reduce equity gaps among traditionally underrepresented student groups, with the goal of cutting achievement gaps by 40% within five years and fully closing those achievement gaps for good within 10 years; and

6) Reduce regional achievement gaps among colleges located in regions with the lowest educational attainment of adults, with the goal of closing regional achievement gaps for good within 10 years (Foundation for California Community Colleges, 2017).

**Guided Pathways for Student Success**

To achieve these ambitious goals, the Chancellor’s Office encourages all CCCs to implement the Guided Pathways model at their institutions. Guided Pathways is an educational reform effort that has swept the country in the last decade to varying degrees of reported success. This highly-structured approach is intended to be institution-wide and relies on using integrated services across campus to support students in defining a path towards completion. The model is based on providing students clear, unambiguous course maps, or educational plans, that include specific course sequences, defined indicators of progress, and objectives to meet. Central to Guided Pathways are
increased support services provided via counselors who help students select a program of study, develop an individualized student educational plan, and explore different academic and career options based on their unique goals. The Chancellor’s Office notes, if “done correctly, the Guided Pathways framework can improve student achievement and transfer, cut down on the total number of units while earning a degree, increase career certifications and eliminate achievement gaps” (Guided Pathways, n.d.).

The Guided Pathways framework is based on four pillars (Principles of Guided Pathways, n.d.). First, community colleges need to “Clarify the Path” for students by creating clear curricular Guided Pathways to employment and further education. Once the path is identified, institutions should help students to “Enter the Path” by selecting majors or defining goals to be achieved. The third pillar is focused on efforts to help students “Stay on the Path” they have identified and to assist them in meeting defined milestones. Finally, the institution needs to “Ensure Learning” is happening with intentional outcomes.

To implement Guided Pathways, institutions must develop structured onboarding processes such as improved placement tests and co-requisite instruction to provide students with clear, actionable, and usable information they need. All academic programs should be fully mapped out and connected with further education and career advancement while also providing structured or guided exploration for undecided students. In addition, programs should include instructional support and co-curricular activities that are aligned with classroom learning and career interests. The programs should incorporate proactive academic and career advising from the start through completion and/or transfer and students should have an assigned point of contact at each stage in their path, whether a counselor, success coach, or other defined institutional role. To prevent students from straying from the defined path towards success, all CCCs are encouraged to
implement early alert systems linked with interventions and resources to help students stay on the pathway, persist, and progress. These systems require faculty updates on student progress via flags which can be used to implement additional services and supports for students as a preventative measure. Finally, in order to ensure students are taking only the classes they need and thereby increasing their likelihood to complete their required coursework more quickly, courses should be redesigned, and basic skills/developmental education classes should be integrated to accelerate students to college-level classes.

While Guided Pathways is the recommended course of action from the Chancellor’s Office, there are considerable concerns about the feasibility of implementation for community colleges, especially those with limited resources. The political and social dynamics of institutional change including faculty buy-in, administrative hierarchies, and internal power struggles can create significant challenges that are difficult to overcome. In addition, critics note that focusing on institution-wide sweeping changes often results in glossing over the “nuanced and human dilemmas” that students face outside of academia (Rose, 2016). By focusing on structured paths to eliminate the “cafeteria-style, self-service model” that currently exists in community colleges (Jenkins, Smith Jaggars, & Bailey, 2016), the life circumstances of students and the burdens they carry may not be fully recognized or addressed in ways that allow them to succeed.

The Chancellor’s Office outlined seven ways in which all CCCs should focus their efforts to successfully implement the Guided Pathways program on their campuses. Accordingly, institutions should: (1) focus on students’ end goals; (2) always design programming and make decisions with students in mind; (3) pair high expectations with high support; (4) take ownership of goals and performance; (5) enable action and thoughtful innovation across campus; (6) lead the work in partnering across different systems; and (7) foster the use of data, inquiry, and evidence (Foundation
for California Community Colleges, 2017). By focusing on the larger goals, being mindful of students at every step, and using data to inform action, the Chancellor’s Office believes the Guided Pathways model will result in achievement of the Vision for Success goals.

**Statement of the Problem**

As a reform movement sweeping the country in the past decade, Guided Pathways programs have been implemented in various forms by community colleges to address the equity gap in student achievement. At its core the Guided Pathways model is intended to address the needs of students in an equitable way, however, community colleges with mature and successful programs are still seeing an equity gap, particularly among students of color, low-income students, and older students. Therefore, questions remain around the effectiveness of Guided Pathways and what institutions need to do to address disparities amongst student groups. In California, the Chancellor’s Office states that all 115 CCCs are committed to bringing this model to their campuses and that focused work to implement the required components of the model have begun. This study is part of a larger Research-Practice Partnership (RPP) established at one community college with a mature version of a Guided Pathways program that is working towards institution-wide implementation. The RPP between UCLA and College administrators and faculty represents a long-term sustained partnership between researchers and practitioners, who together investigate problems of practice, generate original data analyses, and act. Through a collaborative inquiry process, this Guided Pathways community of practitioners used data, inquiry, and evidence to make decisions about how to best address the student equity gap in achievement in a first-year college seminar course.

This “evidence-based” approach to decision making is known to exist, but there is limited research on how individuals in an institution work together to co-create knowledge, make sense of data and information they receive, and act. Institutions have implemented programs to directly
address these inequities and are increasingly using multiple data sources to make decisions, enact policies, and modify curriculum to close the existing equity gap. This study addresses the absence of literature on sensemaking of data in a community college context and provides a view of how the individual identities and personal experiences of faculty, administrators, and staff impacts the ways institutional, instructional, and programmatic data are valued, used or acted upon to drive decisions on closing the student achievement equity gap.

**Research Purpose and Questions**

This present study addresses these issues through a descriptive single case study of one Guided Pathways program in a Southern California community college, hereafter called the College. In the College, a group of faculty, administrators, and staff associated with a version of a Guided Pathways program have engaged in a year-long process to address the student equity gap in achievement noted within their program via the creation of two data-focused inquiry groups. I explore how a community of practice comprised of faculty, administrators, and staff of a mature Guided Pathways program engaged in learning via an inquiry process as a group, made sense of data via sensemaking, and acted on evidence to make decisions on ways to address the persistent equity gap in achievement of new, first-time, first-year community college students in a specific course. The study was guided by the following questions:

1. In what ways does membership in a community of practice affect participation in inquiry groups focused on data?
   a. How do the members affect the trajectory or outcomes of the groups?
   b. To what extent does membership influence the sensemaking that occurs?

2. How do community college institutional administrators in a community of practice make sense of data to drive decisions around student equity?
a. How do individuals make sense of data? How does sensemaking take place at the collective level?

**Positionality**

The opportunity to participate and observe meetings of two data-focused inquiry groups at the College was provided by the Research-Practice Partnership (RPP) established by my advisor and her relationship with College faculty and administrators. She has actively worked with the Guided Pathways program at the College for over twenty years by serving as a consultant, evaluator, and University-affiliated partner. In her work with administrators, faculty, and staff in this program, she was integral in the creation of the equity data inquiry group and served as facilitator. In addition, her relationship led to the development of the second data inquiry group focused on career exploration led by one of my committee members. As such, the trust between my advisor and the individuals in this study was already deeply established and I was afforded an extension of that trust by proxy. In some ways, my positionality posed benefits and challenges in this study, where members were more likely to be open and treat me as an extension of my advisor whom they consider a friend, but my insider perspective also meant group members may have acted differently and responded more candidly than they would have otherwise. In addition, my personal relationships with some group members may have resulted in biases during my analysis. To address this directly, I included a section in the analyses (Chapter 3, Research Methods) and results (Chapter 4, Findings) addressing my own sensemaking of the meetings and data collection efforts that took place. By analyzing sensemaking as both an insider and outsider, I attended to my positionality within this work.
Manuscript Organization

This dissertation contains five chapters. The next chapter, Chapter 2, describes the theoretical foundations for this work, the conceptual framework on which it is based, and provides definitions of major concepts that drive this study. Chapter 3 provides the research design for the study, including information on the study sample, data collection efforts, and approaches to data analysis and coding schemes. Chapter 4 provides findings specific to the Guided Pathways community of practice engaged in a data-focused inquiry group around student equity. Chapter 5 summarizes the findings of the study, discusses implications of data-focused communities of practice in higher education, addresses the limitations of this work, and provides recommendations for future research.
CHAPTER 2

REVIEW OF RELEVANT LITERATURE

Introduction

This chapter presents a review of the literature in four areas. First, I outline efforts to use data in higher education via collaborative processes. Second, for the conceptual framework I provide a description of communities of practice (Lave & Wenger, 1991; Wenger, 1998) and its application to this study. Third, I describe the theoretical framework that underpins this work, Weick’s (1993, 1995) theory of sensemaking, including a description of the major concepts in the framework, and criticisms and additions that have been suggested by other scholars using this theory in contemporary research. Finally, I provide a summary of collaborative inquiry and learning.

Data Use in Higher Education

Institutional leaders and administrators are being asked to use data, inquiry, and evidence to improve programming and make “evidence-based” and “data-informed” decisions to drive change. In the case of community colleges in California, data is readily at hand on the CCCCO Management Information Systems Data Mart, including the Student Success Metrics dashboard that provides data related to the Vision for Success goals, and the Data on Demand tool which contains metrics for cohorts of students over time. However, institutional data alone do not answer the questions that institutions are asking about student outcomes, equity, and achievement. To address this issue, institutions often rely on the creation of collaborative groups to engage in inquiry processes, develop data, and take action with the results to solve problems that were identified. One example in higher education is The Equity Scorecard (“The Equity Scorecard,” n.d.), which is a process and data tool
that provides practical strategies for institutions to use for improving student outcomes and closing equity gaps. The Equity Scorecard process focuses on bringing together an interdisciplinary evidence team from different departments and divisions to examine campus data, practices, and policies. Through an inquiry process, members work collaboratively to focus on problem-solving and using data to identify, monitor, and address outcome gaps for students.

Another effort involves the creation of research-practice partnerships (RPPs) to bridge the gap between research and practice with the goal to use data for action. Often utilized in the K-12 sector, RPPs are partnerships developed between researchers and educators to investigate problems of practice and generate solutions for improving district outcomes (Coburn, Penuel, Geil, 2013). RPPs focus on practice, with both parties committed to mutualism – a sustained interaction that benefits both researchers and practitioners. Mutualism allows for shared ownership and fosters reciprocal learning, with both parties gaining knowledge from the other. These partnerships are typically long-term collaborations and they have the potential to produce research and innovations that are more applicable to the institutions specific needs, resulting in the likelihood of use. One key component of an RPP is the focus on producing original analyses based on research questions defined by the group and leaders, rather than simply making data accessible to those who request it.

RPPs may differ in the ways in which they work, resulting in three distinct types of partnerships: (1) research alliances, (2) design research, and (3) networked improvement communities (NICs). Research alliances are long-term partnerships between a district and an independent research organization and are typically either based in local school districts or include additional youth-serving partners across multiple sectors (e.g., health, education). Their primary goals are to produce research to inform local policy and practice and they often develop and maintain large data archives to conduct longitudinal analysis of issues pertinent to a district or region.
Design research, on the other hand, aims to “build and study solutions at the same time in real world contexts” (Coburn et al., 2013, p. 8). These RPPs are similar to alliances in that they typically focus on long-term, in-depth work with a single district, however, design research addresses practice and research, with equal importance assigned to them. Finally, NICs are interorganizational networks of multiple schools who join forces to tackle one common problem of practice. NICs engage researchers and practitioners in rapid cycles of design and redesign to develop new ways of systematically examining potential solutions and evaluating short-term progress (Rohanna, 2018). In all three RPP types, the primary motivation is to develop deep, sustained relationships between researchers and practitioners to collaboratively engage in work that investigates problems and provides solutions. Although less common in higher education, the idea of RPPs is particularly well-suited for the community college context where single institutions can engage in innovative work with external research partners to develop research questions, collect meaningful data, and develop ways to address complex problems.

In the community college in which this study was conducted, a version of an RPP has been established to investigate two complex problems: equity in student achievement and career and major exploration. Within the institution, administrators and faculty associated with a small Guided Pathways program were seeking ways to utilize an inquiry process to more deeply explore data that currently existed as well as develop new data sources these two issues. In this work, I explore how a community of practitioners work collaboratively and engage in a sensemaking process through collaborative inquiry.

**Communities of Practice**

Within organizations, learning is an integral part of the processes associated with the life and work of the individuals who exist in that environment. It is a result of everyday living and working
and is unavoidable and ubiquitous (Elkjaer & Wahlgren, 2005). As a social- and practice-based phenomena, learning happens in a situated world-view in which individuals, environment, and their doings, actions and thinking are connected (Lave & Wenger, 1991). Learners are social beings that construct their understanding and learn from participation in organizational practices with one another (Elkjaer & Wahlgren, 2005), but learning does not happen in a sequential way.

Organizational learning is the study of experience, knowledge, and the effects of knowledge within an organizational context (Fiol & Lyles, 1985). Over time, organizational learning theories have shifted in their focus from the individual manager and his or her decision making to the incorporation of the organization as a learning environment. In this transition, theorists have noted the need to address the ways in which the individual and their environment are intertwined as one cannot fully separate the individual from the organization and its defined practices.

The communities of practice theoretical framework first posited by Lave and Wenger (1991), and subsequently expanded upon by Wenger, has provided a conceptual direction for the study of organizational and workplace learning in a variety of sectors. Although originally based in organizational learning, communities of practice as a theory and an application has found significant use in other sectors, with education adopting the framework in multiple contexts. The theory has been used to examine learning in all levels of education, including primary education (Linehan & McCarthy, 2001), secondary education (Grisham, Bergeron, Brink, Farnan, Lenski, & Meyerson, 1999), further education (Bathmaker & Avis, 2005), higher education (Tight, 2004), and adult education (Harris & Shelswell, 2005). Specific areas in which research has been conducted include academic development (Donnelly, 2008; Malcolm & Zukas, 2000; Warhurst, 2008), assessment (Elwood & Klenowski, 2002; Price, 2005), group work (Fearon, McLaughlin, & Eng, 2012), practice-based learning (Hodge, Wright, & Mozeley, 2014), and professional development of
teachers (Sutherland, Scanlon, & Sperring, 2005). In particular, Wenger’s communities of practice theory has been utilized to study the creation and learning that occurs in online learning communities (Barab, Makinster, Moore, & Cunningham, 2001; Huysman, Wenger, & Wulf, 2003; Johnson, 2001; Palloff & Pratt, 2007; Renninger & Shumar, 2002; Rogers, 2000).

The term community is applied to numerous contexts, such as people within a neighborhood, a group of individuals who share similar racial or religious backgrounds, or a group who have a common interest. A community of practice is defined as a group of people who share a concern and engage in a process of collective learning (Wenger-Trayner & Wenger-Trayner, 2015). In a community of practice, Lave and Wenger (1991) argued in their original text that learning does not rest with the individual, but is a social process situated in a cultural and historical context. In subsequent writings, Wenger further defined a community of practice as a “learning partnership among people who find it useful to learn from and with each other about a particular domain. They use each other’s experience of practice as a learning resource” (Wenger, Trayner, & de Laat, 2011, p. 9). Communities of practice share three characteristics that differentiate them from other types of communities. These three characteristics include: the domain, the community, and the practice as shown in Figure 1.
In a community of practice, groups of individuals come together to share ideas focused on a specific topic (Buysse, Sparkman, & Wesley, 2003). This shared domain of interest defines the community, whereby membership in the community implies a commitment to the domain and a collective competence around a topic (Wenger, 1998). The domain is what gives a group its identity and defines the key issues to be addressed when participating in the group. Members in a community of practice do not necessarily work together daily, but by pursuing their common interest in a specific domain, members create community by engaging in joint activities, discussions, and knowledge and information sharing exercises together to further their understanding of the topic. To be a community, the members must come together, interact, and learn together. As the name implies, a community of practice is based on membership consisting of practitioners who work together to develop a shared repertoire of resources including experiences, stories, tools, and ways to address recurring problems relevant to the domain they care about. The combination of these three elements constitutes a community of practice, and by developing them in parallel, a
broader community is cultivated, and collective learning is reinforced and applied to the context in which the group works.

Within a community of practice, an individual’s engagement involves a negotiation of meaning that takes place through two complementary processes: *participation* and *reification*. Participation involves members acting and interacting, and reification involves the production of artifacts (e.g., tools, words, rules, documents, etc.) around which the negotiation of meaning is organized. Through active participation, members share knowledge and develop meaning around the domain of interest, and by developing an idea and producing concrete tools to further the learning and creation of meaning, the interplay of both processes is revealed. Over time, and through these two processes, Wenger (1998) states participants of a community of practice develop and negotiate three criteria by which they recognize membership: 1) *joint enterprise* – a collective understanding of what the community is about (i.e., its purpose); 2) *mutual engagement* – interacting and establishing norms, expectations and relationships; and 3) *shared repertoire* – using the communal resources, such as language, artifacts, tools, concepts, methods, and standards.

As members who meet the criteria above participate in a community of practice, Wenger (1998) suggests they express their belonging through three modes of identification, including: 1) *engagement* – doing things together, talking, and producing artifacts; 2) *imagination* – reflection and constructing an image of the practice as its members and seeing themselves as one of them; and 3) *alignment* – following directions, aligning self with expectations and standards, and coordinating actions towards a common goal.

The development of a community of practice takes time and sustained interaction on the part of a group’s members and within groups can vary in significant ways. Communities of practice may differ in size, and the number of participants can fluctuate depending on the purpose or needs
of the group, with both core and peripheral group members floating in and out of the community as needed. In some contexts, communities of practice are self-organizing, however, they may also be borne of a directive, meaning some may be formal and others informal in their execution. Individuals roles and professional responsibilities of community of practice members may differ, but all members are associated with the domain of interest that underlies the group formation.

Communities of practice can serve a variety of functions such as sharing knowledge, but they may also come together to innovate and solve problems, or to invent new practices and create new knowledge on which to operate. People often belong to more than one community of practice, with each reflecting different boundaries that separate them from one another. Having membership in multiple communities means members cross boundaries and engage in brokering, or “transfer[ring] some element of one practice into another” (Wenger, 1998, p. 109), and therefore impacting the learning that takes place in the different groups (Smith, Hayes, & Shea, 2017). Those who cross boundaries as outsiders or newcomers to the group but are offered the opportunity to participate in a community are called *peripheries*. They move from the outside, or periphery, to the center of the group through increased involvement. Wenger (1998) notes that engaging newcomers into a community will help the group to gain a “sense of how the community operates” (p. 100).

In addition, the identities of members are affected through the acquisition of new knowledge and through co-creation and active participation in a community of practice. Wenger (1998) notes the potential changes in identity for participants, stating:

> Because learning transforms who we are and what we can do, it is an experience of identity.
> It is not just an accumulation of skills and information, but a process of becoming – to become a certain person, or conversely, to avoid becoming a certain person (p. 215).
Essentially, there is no single way in which a community of practice is formed, maintained, sustained, or operated, however, with a group of practitioners engaged in sharing and learning, communities of practice have the potential to develop both a collective and strategic voice that can promote action.

There are numerous strengths of these types of communities, with some key benefits including the ability for practitioners to: 1) take collective responsibility for the knowledge they need to maintain commitment or implement action based on knowledge shared; 2) create direct links between learning and performance; 3) address the tacit and dynamic aspects of knowledge creation and sharing, in addition to more explicit ones; and 4) create connections among individuals across organizational boundaries due to the flexibility of potential structures. Communities of practice are not only a way for individuals to collectively examine the domain of interest, but they allow members to also build relationships that enable learning. In this way, communities of practice are social structures, with members interacting and learning from one another in a dynamic environment. Members of a group have a shared repertoire and they will care about their standing with each other, both personally and professionally, which affects what takes place within and outside the group they have developed (Wenger-Trayner & Wenger-Trayner, 2015).

In this study, I examined the interactions of members within a community of practice associated with a version of a Guided Pathways program at one community college. The shared domain of interest were the students and all members were practitioners such as administrators, faculty, and staff. All members had different roles within the organization, unique experiences associated with their personal and professional experiences, and varied knowledge and resources to draw from about the students they served.
Sensemaking

Based in organizational learning, the theory of sensemaking was first posited by Karl E. Weick (1993, 1995). Sensemaking literally means the making of sense, specifically considering the process by which individuals or an organization construct what they construct, why they do so, and to what effect (Weick, 1995). Sensemaking is grounded in both individual and social activity and is about the process of generating information – the action, activity, and creation of information – that may then be used to interpret results. Weick clearly states sensemaking is not interpretation, nor are they synonymous, but that interpretation is one component of sensemaking. In a broader context, sensemaking provides a useful way of uncovering the social psychological processes that contribute to outcomes, rather than focusing on the outcomes themselves (Helms Mills, Thurlow, & Mills, 2010). As it is based in social interactions of individuals working together, sensemaking is a process through which people come to understand and assign meaning to the same event.

In sensemaking, people are triggered by cues in their environment which they attend to and bracket (i.e., organize). These events or issues are often novel, ambiguous, confusing, or in some other way violate the assumption of what typically would have occurred and therefore require attention (Maitlis & Christianson, 2014). The process is dynamic and never-ending and when these issues arise, people create intersubjective meaning through cycles of interpretation and action, thereby enacting a more ordered environment from which further cues can be drawn. More simply put,

When organizational members encounter moments of ambiguity or uncertainty, they seek to clarify what is going on by extracting and interpreting cues from their environment, using these as basis for a plausible account that provides order and “makes sense” of what has
occurred, and through which they continue to enact the environment. (Maitlis & Christianson, 2014)

There are seven interrelated characteristics of sensemaking, however, not all seven are required for sensemaking to take place. These seven properties include identity construction, retrospection, focus on extracted cues, driven by plausibility not accuracy, ongoing, enactive of the environment, and social (Weick, 1995).

**Grounded in Identity Construction.** Sensemaking is rooted in the identities of the individuals or organizations that are engaging in an activity or process. According to this property, identities are shaped by who we are and what factors have influenced the ways we see the world. For example, the identities of all individuals are affected by parents, families, friends, where they grew up, and what their educational experiences have been. Not only are identities formed from individual life experiences, but they are constituted out of the process of interaction and are continually redefined as a person engages in other experiences and interacts with other people. According to Weick (1995), “establishment and maintenance of identity is a core preoccupation of sensemaking,” (p. 20) and a person’s changing sense of self operates in service of three self-derived needs:

1. The need for self-enhancement, as reflected in seeking and maintaining a positive cognitive and affective state about the self;

2. The self-efficacy motive, which is the desire to perceive oneself as competent and efficacious; and

3. The need for self-consistency, which is the desire to sense and experience coherence and continuity.
To preserve our sense of self, Weick suggests that individuals learn about their own identities by projecting them into an environment and observing the consequences. As humans, we rely on our need to preserve our sense of self, one where we present as knowledgeable, useful, creative, etc., with the hope that others immediately recognize these qualities in us as well. People take cues based on the conduct of others, but they actively attempt to influence this conduct in the first place by ensuring their personal identities are incorporated in the process as well. In this way, “identity construction is about making sense of the sensemaker” (Helms Mills et al., 2010).

**Retrospective.** Sensemaking is retrospective and occurs as people assign meaning to what has occurred in the past in order to plan for the future (Weick, 1993). Thus, creation of meaning is reliant on past experiences that we use to interpret current events. Sensemaking is a comparative exercise whereby individuals look backward to compare what is happening presently to a similar or familiar event from the past to make sense of the event. By using memories to synthesize current information, individuals or organizations can apply meaning based on previous experiences and the results of those experiences. For example, a community college instructor with 20 years of teaching experience will retrospectively apply their past experience teaching a specific course to a new course being developed or rely on previous experiences with students to invoke changes to a curriculum.

**Focused on Extracted Cues.** Sensemaking is triggered when “members confront events, issues, and actions that are somehow surprising or confusing” (Maitlis, 2005, p. 21), and when “discrepant events, or surprises, trigger a need for explanation” (Louis, 1980, p. 241). These triggers, or extracted cues, are simple, familiar structures that are “seeds from which people develop a larger sense of what may be occurring” (Weick, 1995, p. 50). Cues may be issues, events, or situations for which meaning is ambiguous or the outcomes may be uncertain. When these occurrences are noticed, they interrupt the ongoing flow of a person’s work, prompting the need to make sense of
these cues that reflect a discrepancy between expectations and reality (Maitlis & Christianson, 2014). As sensemaking relies on personal identities and retrospective experiences, individuals tend to focus on specific elements while completely ignoring others to make sense of the situation at hand. In this way, other cues from the environment may be ignored for individuals to focus on those cues that support their beliefs. Context is particularly important as it determines what is extracted as a cue in the first place and how that cue is then interpreted in the sensemaking process (Helms Mills et. al, 2010).

**Driven by Plausibility Not Accuracy.** Sensemaking does not rely on accuracy, instead we look for cues that make our sensemaking seem plausible. In many cases, speed and action are required and there is little time to ensure accuracy is achieved, so “accuracy is nice, but not necessary” (Weick, 1995, p. 57) to make sense of an event. By focusing on cues that feel plausible, individuals may distort or filter information in ways that differs significantly from others. For example, individuals with different roles in an organization may develop varied explanations for an event based on the cues that support their own work and the plausibility of these cues as defining the action they can possibly take. In this way, sensemakers focus on knowing enough to continue their work, but no more, meaning sufficiency and plausibility take precedence over facts. Striving for accuracy may hinder the path to action and people often are seeking sensible ways to address a problem to achieve an outcome. The capabilities for action may ultimately affect what is believed by individuals or group members and also what is rejected (Weick, 1995), resulting in certain cues receiving more attention and others being ignored.

**Ongoing.** Sensemaking never starts or stops, it is a sequential process and sensemaking flows are constant. Although the process is often triggered by an event or issue, we are always in the middle of things, immersed in flows, and constantly making sense of what happens around us.
(Weick, 1995). For example, sensemaking at the individual and collective level takes place in scheduled group meetings, however outside of such gatherings, individuals continue to do their own jobs, interact in their own work circles, have new experiences, and live their lives beyond the place they work. These ongoing flows of information we receive affect how we interpret what happens when moments and cues are isolated to make sense of a situation and we are then “forced” to attend to the issues at hand (Weick, 1995; Helms Mills et. al, 2010). Even though people are occupied in flows, they are seldom indifferent to what happens around them, and an interruption in the flow induces an emotional response that influences the sensemaking that takes place.

**Enactive of the Environment.** As individuals or members within an organization, we have created our own environments and have defined what is credible, what falls outside of expectations, and what requires attention. Helms Mills et. al (2010) liken this to a self-fulfilling prophecy in which “the environment that has been created by the sensemaker reinforces his or her sense of credibility” (p. 185). The sensemaking process is about making sense of an experience within that environment, which suggests our sensemaking can be created or constrained by the very environment we are working within. Enactment is the reciprocal influence between action and the environment in which members “create a stream of events that they pay attention to” (Orton, 2000, p. 231). The action that people take to make sense of a situation, in turn, enacts the environment in which they are seeking to understand (Maitlis & Christianson, 2014). Actions shape the environment for sensemaking because the same actions that help people make sense of what is happening can also alter what they encounter and change the very situation that prompted sensemaking in the first place. Enactment is one of the aspects that differentiates sensemaking from interpretation as it is based on how people notice or select information from the environment, make meaning of it, and then act on the ways they have interpreted the information (Coburn, 2001).
**Social.** Sensemaking unfolds in a social context of others, with meaning being negotiated and mutually constructed (Maitlis & Christianson, 2014). However, Weick (1993, 1995) notes the social influences on sensemaking are not contingent on the presence of others in the same physical space. As individuals shaped by the rules, routines, symbols and languages of the organization in which we work or the spaces in which we live, the sensemaking process is affected by these scripts that define appropriate conduct. As such, our conduct in these situations is affected by others, whether they are imagined or physically present. Sensemaking is never a solitary activity because what a person does internally is also based on having a presumed audience (Weick, 1995). In the group setting, the contexts in which we are embedded shape sensemaking processes by influencing patterns of social interactions (influencing who is talking with whom about what) and shaping conditions for sensemaking (Vaughan, 1996).

**Critical Sensemaking**

In applying the sensemaking theoretical framework as well as using it as a method of analysis, recent scholars have noted key characteristics lacking from Weick’s model. These concepts, power, knowledge, structure, and past relationships have been incorporated into contemporary applications of sensemaking and labeled critical sensemaking (Helms Mills, 2003; Thurlow, 2007; Helms Mills et. al, 2010). According to Helms Mills (2003), Weick’s sensemaking theory is limited by its focus solely on the organization, and the assumption that sensemaking was a democratic process in which all voices were equally valued. Critical sensemaking considers the individual aspect of identity construction and the ways in which individuals understand their own identities (e.g., “who are we?” or “how do we things?”) and that of the organization. It provides a framework for “understanding how individuals make sense of their environments at the local level while acknowledging power relations in the broader societal context” (Helms Mills et. al, 2010, p. 190).
Critical sensemaking is defined as a complex process that occurs within, and is influenced by, a broader social environment related to organizational power and social experience (Helms Mills et al., 2010). Identity construction, social context, and the ongoing nature of sensemaking flows are not only related to how individuals make sense of information, but they are directly influenced by the organizational power and dominant assumptions that privilege certain identities over others. For example, the ways in which a “good employee” is defined, and the privilege it affords those who embody that definition affects the ways in which an individual draw upon cues in their environment, which receive attention, and how they address them. Some individuals within an organization may have more influence on making meaning more than others, and those with more power in an organization may exert this power in sensemaking situations with other less powerful members. Critical sensemaking aims to analyze the power relationships reflected in these inequalities within organizations and to explore the consequences of those power effects for individuals (Helms Mills et al., 2010, p. 189). In critical sensemaking, context matters, specifically the societal structures in which individuals find themselves. These structures form a link between dominant social values and individual action, with those more privileged in society representing a restrictive influence on others by reinforcing the dominant values they hold. Critical sensemaking argues that sensemaking needs to be analyzed in relationship to “contextual factors of structure and discourse in which individual sensemaking occurs” (Helms Mills et al., 2010, p. 190).

According to Weick (1995), “The substance of sensemaking starts with three elements: a frame, a cue, and a connection” (p. 110). A cue within a frame is what contributes to making sense because they are intertwined; one cannot make sense of the cue alone or the frame alone. In this study, the frame that contains this work is the Guided Pathways program. The cue that was extracted as a focus was the equity gap in achievement specific to Hispanic or Latino/a/x and Black
youth who are in Guided Pathways and take College 1, a required first year seminar course. To make sense of the equity gap cue and better understand the connection between it and the Guided Pathways frame, the equity data inquiry group (EDIG) was formed by the Guided Pathways community of practice members (i.e., program faculty and administrators) to use data to inform action to close the gap. The sensemaking relationship between the three elements that comprise this study are shown in Figure 2.

**Figure 2. Sensemaking Elements**

FRAME - Guided Pathways

CUE
College 1
Equity Gap

CONNECTION
Guided Pathways
Community Members

Equity Data Inquiry Group (EDIG)

Both Wenger and Weick’s theories highlight the social processes that contribute to learning and how people come to understand and assign meaning to events they are trying to make sense of. The individual and collective aspects of people working with one another influences and directs the decisions made or actions taken based on the learning and sensemaking that occurs. In this work, I examine the overlap between these two theories and how both contribute to action at the individual and collective level of a community of practice as depicted in Figure 3. The distinction between the two overlapping ideas, learning and sensemaking, are that learning is an outcome of the group,
whereas sensemaking is the process by which the outcome is achieved, and when combined, they both lead to action.

**Figure 3. Learning and Sensemaking Result in Action**

Collaborative Inquiry and Learning

Inquiry is a request for information, or “a way of finding things out - collecting data and interpreting evidence in ways that enhance and advance understanding” (Earl & Katz, 2002, p. 1010). Collaborative inquiry provides a systematic structure for learning that is experience-based and action-oriented (Kasl & Yorks, 2002). The use of collaborative inquiry as an approach to professional development can be framed within other social learning theories that address the relational components of adults working in collaborative group settings (Black, 2018). It falls within other inquiry methodologies including action research, action inquiry, action learning, action science, and participatory action research. As a process, collaborative inquiry supports professional learning,
with educators coming together to examine their educational practices and create new knowledge that becomes the basis of actions taken to promote change in their environment (Brooks & Watkins, 1994). In education, collaborative inquiry processes are often utilized in Professional Learning Communities (PLCs) where teams of teachers work collaboratively to engage in a continuous reflection and learning process on their educational practice. These processes are cyclical in nature, and involve inquiry, reflection, and action (Kasl & Yorks, 2002; Reason, 1999). Collaborative inquiry is an inherently social process, with teams working together to ask questions, develop theories of action, determine action steps, and gather and analyze data to assess the impacts of their actions (Donohoo, 2013).

Heron (1996) and Reason (1999) propose four phases of a cyclical reflective process that supports collaborative inquiry work in groups. Depending on the types of questions being explored, a group may go through six to ten cycles of action and reflection. The four phases are summarized below:

1) A group of people forms with a common interest and identifies key issues they wish to investigate and act upon. They set procedures by which they will record their own and each other’s experiences;

2) Group members apply these actions into their everyday life and work, reflecting upon them as they are implemented;

3) Through inquiry, they achieve deeper engagement with team members being fully immersed in their experiences; and

4) Members revisit the initial issues or questions to challenge, refute, or affirm initial findings and to pose new questions for study.
Through inquiry cycles, team members engage in collective learning, a dynamic and cumulative process that results in the production of knowledge. Collective learning represents a macro concept that addresses learning at the levels of the team, the organization, and society (Garavan & McCarthy, 2008). According to Garavan & McCarthy (2012), there are multiple perspectives on how collective learning takes place, the first is that it occurs when individuals “create, acquire, and share unique knowledge and information” (p. 647) and this process is aggregated to the group level. The second suggests collective learning takes place when the group engages in behaviors such as “asking questions, seeking feedback, experimenting, reflecting, and discussion options and errors” (p. 647). The third view suggests that collective learning itself is dynamic in which the learning process and behavior of the group changes as they learn collectively. The knowledge produced via collective inquiry takes the form of structures, rules, norms, and strategies that guide future actions taken (Garavan & Carbery, 2012).

Developing an institutional culture that values, enables, and supports inquiry is not easy to achieve. Institutions must address their internal capacity to create conditions for “generating new knowledge through a process that combines deep collaboration with evidence and inquiry” (Katz & Dack, 2014) if they aim to embrace the full potential of systematic inquiry processes. In collaborative inquiry within institutions, data can be used to both shape and provide direction for groups, challenging members’ thinking, generating different interpretations, and creating new knowledge that has potential to change their practices. In this way, Katz & Dack (2014) argue that “paying attention to data holds the potential to yield new professional learning because it interrupts the status quo” (p. 36).

This study focuses on a collaborative inquiry process centered on data, with administrators and faculty of the Guided Pathways community of practice identifying questions of interest,
engaging with different data sources, and taking action based on their individual and collective learning that took place within data inquiry groups. Thinking is a human activity, and “data alone do not answer questions; instead they provide tools for thinking” (Earl & Katz, 2006). By “becoming a skilled and confident consumer and user of data for school improvement,” a new way of thinking is tapped into, and a culture of inquiry is created and sustained in which real professional learning is at the center (Katz & Dack, 2014, p. 35). By developing and maintaining the two data-focused inquiry groups at the College, the Guided Pathways community of practice members engaged in a process of not only learning how to use data, but more about how to use data to learn.
 CHAPTER 3
RESEARCH METHODS

Introduction

This chapter presents the research methods and analyses used to examine how members in a community of practice at one community college made sense of data, engaged in inquiry and acted on evidence to make decisions on ways to address the persistent equity gap in achievement of new, first-time, first-year community college students. The members were faculty, administrators, and staff associated with a Guided Pathways program involved in two data-focused inquiry groups on student equity and career and major exploration. In this chapter, the case study design and setting are described, as well as the procedures for data collection and analysis. The specific research questions for this study were:

1. In what ways does membership in a community of practice affect participation in inquiry groups focused on data?
   a. How do the members affect the trajectory or outcomes of the groups?
   b. To what extent does membership influence the sensemaking that occurs?
2. How do community college institutional administrators in a community of practice make sense of data to drive decisions around student equity?
   a. How do individuals make sense of data? How does sensemaking take place at the collective level?
   b. What member characteristics influence the ways in which sensemaking occurs?
Study Design

Given the goals of this study, a descriptive single case study design was used to collect qualitative data from multiple key sources. According to the literature, a case study is defined as an in-depth, multifaceted investigation and analysis of a single social phenomenon within a bounded system (Feagin, Orum, & Sjoberg, 1991; Merriam, 2009; Yin, 2014). Definitions are often left intentionally broad, and typically focus on the application of qualitative research methods to describe the phenomenon and the real-life context in which it occurred. In this case study, the case, or unit of analysis, is one community of practice of institutional administrators, faculty, and staff involved in a mature Guided Pathways program at a single community college. This case was selected because it is a bounded entity where the phenomenon of learning, sensemaking, and action in a data-focused community of practice can be explored. Focusing on a single case study allowed for the depth of observation necessary to capture the subtleties associated with learning and sensemaking in a social context amongst a core group of community college practitioners. Although not generalizable, the in-depth observation made possible by this case provides the opportunity for future work on understanding how sensemaking occurs specific to the use of data, and how it takes place in an inquiry-based group setting.

Study Setting – The College

This case study focused on one community college in Southern California, hereafter called the College. The College is one of 115 community colleges in the state of California, and serves over 30,000 students each semester, including international students from 71 different countries. As this is a community college, the College is open to all individuals seeking further education, whether credit or noncredit. Although the city in which the College is located is predominantly White, the majority of students identify as Hispanic or Latino/a/x (51%), followed by Asian or Pacific Islander
(24%), White (15%), and Black (4%). Similar to other community colleges, nearly three-quarters (71%) are younger than 24 years old and more than half (54%) attend part-time.

**Guided Pathways Program**

The College has over 200 programs for students and prides itself on providing comprehensive supports to enable students the greatest opportunity to succeed. These supports include mentoring programs, special services for students with unique educational needs, academic tutoring and counseling, and support programs aligned with chosen academic tracks. For this study, I focused on a community of practice comprised of institutional administrators, faculty, and staff based on the Guided Pathways program within the College. Guided Pathways as a model is an institution-wide approach, however, this study focuses on a single program based on the principles associated with that framework. This program was developed years prior to the push for Guided Pathways as a campus-wide initiative and has the stated mission of closing equity gaps for all student groups, particularly Hispanics or Latinos/as/x and Blacks. Guided Pathways is designed to ease students’ transition from high school to college by providing academic assistance before and throughout the first year and aims to help students choose a path, stay on that path, and complete their academic goals. In Fall 2018, approximately 2,500 students were enrolled in the Guided Pathways program, with racial and ethnic makeup mirroring that of the College. Approximately half of the students identified as Hispanic or Latino/a/x (47%) or as Asian or Other Pacific Islander (30%), and almost all were between the ages of 16-20 (98%).

**Guided Pathways Program Student Requirements**

Guided Pathways students are afforded numerous benefits for active participation in the program including: priority registration for courses, access to several centers to use computers, meet
with tutors, or work with their peers, and a personal Success Team to monitor and support their progress. To be a Guided Pathways student and receive these benefits, students must first apply to the College and complete the online orientation. For spring 2019, all new first-time students were considered for the Guided Pathways program upon submission of their College application, and eligible students were able to confirm their intent to participate during the online orientation process. Guided Pathways students are required to attend a New Student Group and Jam, a no-credit, no-cost, four-day program that takes place in the summer prior to their first year of attendance. During the Jam program, students meet their Student Success Team comprised of counselors, success coaches and peer tutors, and become familiar with campus resources and supports that will prepare them for a successful first year.

In addition to Jam, Guided Pathways students are required to complete College 1, a 3-unit California University transferrable course taken in their first semester as a Guided Pathways student. This course is designed to ease the transition into college and focuses on improving reading and research abilities, developing communication skills, and learning about time management, goal-setting and other life skills to help them succeed in their college experience.

**Study Procedures**

**Participant Selection**

In early 2018, the Guided Pathways program commenced two distinct data-focused inquiry groups to drive deeper discussions around student data, generate questions for further investigation using data, and to make decisions on how to best use data to inform institutional change. The first group, deemed the Equity Data Inquiry Group (EDIG), focused on data specific to the College 1 course and the student equity gap in achievement for Guided Pathways students. The second group,
the Career Data Inquiry Group (CDIG), concentrated on data related to careers and major exploration of Guided Pathways students. Both data groups were facilitated by different University of California, Los Angeles (UCLA) faculty and doctoral students, and membership was comprised of College 1 faculty, Guided Pathways program administrators and staff, representatives from the Office of Institutional Effectiveness, counselors, and College student representatives. Although both groups focused on data and were facilitated by UCLA faculty, they differed in that the EDIG was based on evaluation as the approach to inquiry and CDIG was engaged in research. The primary focus of this work was with the EDIG, however, as the CDIG was occurring simultaneously and contained some of the same key members of the Guided Pathways community of practice, data collection efforts for CDIG were conducted as well.

Data Collection

To ensure credibility of the findings and reduce bias due to my own positionality and involvement with the study participants, I included multiple data sources in this study (Guba & Lincoln, 1986). Key members from both groups were solicited via email and in-person to participate in semi-structured interviews. In addition, qualitative data were gathered via participant observations of both data groups. Secondary data sources included documents and artifacts from these group meetings, including formal meeting minutes, PowerPoint presentations, and data sources reviewed within the meetings that took place.

Semi-structured Interviews. As this work was exploratory in nature, a purposeful sampling approach was utilized to recruit interview participants. Semi-structured interviews were conducted with key group members of the Guided Pathways community of practice between February and June 2019. Interview participants were selected based on their consistent attendance in the EDIG, which suggested they were invested in the inquiry process and were effectively engaging in a
community of practice together. Interviews were scheduled for one hour in-person or via telephone based on the preference and availability of interview subjects. All interviews were audio-recorded and transcribed using a transcription service. In total, six individuals were interviewed, and their general characteristics are depicted in Table 1. A seventh individual was contacted five times for an interview but was unresponsive.

Table 1. Interview Participant Characteristics

<table>
<thead>
<tr>
<th>Title</th>
<th>Affiliation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Associate Dean, Guided Pathways</td>
<td>Administration</td>
</tr>
<tr>
<td>Guided Pathways Faculty Lead</td>
<td>Administration; College 1 Faculty</td>
</tr>
<tr>
<td>Director of Professional Development</td>
<td>Administration; College 1 Faculty</td>
</tr>
<tr>
<td>Counseling Faculty Lead</td>
<td>Administration; College 1 Faculty</td>
</tr>
<tr>
<td>Research Analyst</td>
<td>Office of Institutional Effectiveness</td>
</tr>
<tr>
<td>Doctoral Student</td>
<td>EDIG Participant</td>
</tr>
</tbody>
</table>

As stated previously, interviews were semi-structured, adhering to a general set of topics and themes outlined in the interview protocol. Questions revolved around an interviewee's perception of the purpose of each group, membership, strengths and limitations, the data sources used, and the influence of members on the direction of the groups. Dr. Christie was excluded from the interview process due to her role as both the facilitator of the group and the Chair for this dissertation.

EDIG and CDIG Participant Observations. From May 2018 to June 2019, I attended 11 meetings of the EDIG on the College campus as a participant observer. In addition, I attended two meetings via conference call when unable to attend in-person, totaling 13 observations. During that same time period, I conducted in-person participant observations of six meetings of the CDIG. The majority of EDIG and CDIG meetings lasted between one and a half to two hours and frequency of meetings ranged from bi-weekly to monthly, depending on the availability of members to attend in a
given month. During the 13-month observation period, there were some months where no meetings took place. In these meetings, I took my own notes in Microsoft OneNote to document the EDIG and CDIG activities and processes, key quotes of members, discussion points around data, and other informal observations about what took place within each meeting and over time. In addition, I wrote personal reflections regarding each meeting as it was unfolding, and short memorandums to myself after each meeting ended. In total, 19 observations were conducted in 13 months, as shown in Tables 2 and 3.

Table 2. Number of Participant Observations by Academic Year (2017-2018)

<table>
<thead>
<tr>
<th>Data Group</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>Jun</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDIG</td>
<td>2</td>
<td>2</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CDIG</td>
<td>1</td>
<td></td>
<td></td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

*Note: EDIG started in March 2018 and CDIG started in May 2018.*

Table 3. Number of Participant Observations by Academic Year (2018-2019)

<table>
<thead>
<tr>
<th>Data Group</th>
<th>Jul</th>
<th>Aug</th>
<th>Sep</th>
<th>Oct</th>
<th>Nov</th>
<th>Dec</th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>Jun</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDIG</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>CDIG</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5</td>
</tr>
</tbody>
</table>

**Documents and Artifacts (secondary data).** In addition to my own observational notes, EDIG meetings were documented by UCLA doctoral students. From March 2018 to June 2019, the EDIG met 20 times, 16 of which were officially documented by two UCLA PhD student notetakers. When both students attended a meeting (approximately 75% of the time), both took notes simultaneously. Afterwards, they shared notes and one developed the final meeting minutes document. As a participant observer who was not there to document the general events, my lens
differed from the notetakers in that I focused more on the interaction of group members, the words that were spoken in the room, reactions to data by members and myself, and my own interpretation of how the inquiry process progressed. I was provided “official” EDIG meeting minutes from 16 meetings, and unofficial notes from 3 additional meetings, for a total of 19 to incorporate in my analysis. Additional documents and artifacts generated in EDIG meetings utilized in my analysis included tables of institutional data, survey results, and other data collection findings from the UCLA external partners.

The CDIG meetings were not documented in the same manner, however, documents and artifacts were shared in each meeting, including PowerPoint presentations and group activities to be completed on paper. I collected these artifacts in-person or via email and included these items in my data analysis.

Analytic Procedures

This section describes the analytical stages and procedures that were utilized in this study. As a single case study, a significant portion of the analyses for this work focused on providing a holistic description of the Guided Pathways community of practice at the College. This community of practice is particularly unique in that they are actively engaged in evaluation of their own programming, collect data with external partners such as UCLA, and earmark funds annually to assess their impact on students and determine ways to improve their program. Based on their own work looking at their programmatic data, the members sought to take it to another level by developing the two data-focused inquiry groups. In many ways, the EDIG and CDIG represented new ways to engage with institutional and student data within the community of practice that was already firmly established in Guided Pathways. For analysis of all data sources, I first engaged in pre-
coding and then moved into first and second cycle coding based on Saldaña’s (2013) outline of appropriateness. All stages of analyses are outlined in detail below.

**Preliminary Analyses - Data Preparation and Pre-Coding**

**Documents, artifacts, observational notes.** In February 2019, preliminary analyses were conducted on the documents, artifacts, and my own observational notes from the EDIG and CDIG meetings that had occurred over the past year. The primary purpose of these analyses was to identify any themes or salient ideas that felt relevant to address in semi-structured interviews with the Guided Pathways community of practice members. Entering this exercise, I developed a “start list” of provisional codes (Saldaña, 2013, p. 141) based on my experiences as an observer in the meetings and related to the theoretical framework on sensemaking that underpins this work. In this pre-coding exercise, I printed the official meeting minutes, personal observation notes, and artifacts from each meeting, such as data tables and evaluation results. I reviewed the documents in chronological order and highlighted significant passages that were striking or caught my attention. I underlined quotes that resonated with what I had been documenting in my personal notes and made separate jottings of potential codes to consider in my first cycle coding. In this first review, I looked at the EDIG and CDIG documents and artifacts separately and used these observations to consider how the variation in membership at both meetings may have resulted in unique takeaways that were revealed. The same exercise was conducted with all documents, artifacts, and notes that were accrued from March to June 2019.

Key ideas that resulted from the preliminary analysis of EDIG documentation included: (a) data sources had the potential to be used, desired, developed, or wholly abandoned; (b) attendance of members varied and the people in the room affected the direction taken; (c) action often took precedence over continued inquiry; and (d) lack of defined goals led to shifting focus. For CDIG
meetings, there were no official meeting minutes, therefore my observational notes served as the primary source of data. In the pre-coding exercise of CDIG documents, artifacts, and notes, the key ideas included: (a) facilitator(s) are critical to the progress of the group; (b) student representatives provide different perspectives and affect group discussion; and (c) the research focus potentially stifled “inquiry” in relation to the data presented.

**Interviews.** All interviews were completed between February and June 2019 and were audio-recorded and transcribed. Similar to the pre-coding analyses with documents and artifacts, the interviews were printed, read, and notes were made of salient ideas. Significant passages were highlighted, including key quotes that aligned with the key ideas discovered in the document analysis. In opposition to the themes that were directly observable at the manifest level with the documents/artifacts, the interviews contributed to understanding the underlying phenomenon of sensemaking at the latent level. In pre-coding interview transcripts for the Guided Pathways community of practice members, the key ideas that emerged included: (a) the importance of personal and professional identity and the ways that identity presented itself within the group; (b) the social aspect of involvement in the group; and (c) how power dynamics and “voice” are inherently embedded in the group experience.

**Secondary Analyses - First-Cycle Coding**

All documents, artifacts, observational notes, and interview transcripts were uploaded to Dedoose, a web-based application for mixed methods research. Using this online platform, I engaged in a series of open coding cycles using elemental and exploratory coding methods as described by Saldaña (2013). Elemental coding methods that were used included: attribute, descriptive, and In Vivo codes. In addition, I applied provisional codes using exploratory coding methods. Attribution codes were applied to official meeting minutes and observational notes.
regarding meeting attendance, the data sources shared, activities in which members participated in, and document/artifact type (e.g., Excel spreadsheet, printed handout, etc.). Saldaña’s (2013) outline of appropriateness recommends using descriptive codes for field notes, documents and artifacts and In Vivo codes for interviews. Descriptive codes focus on the topic, and not the actual content of the data and provide the “basic vocabulary” that generate larger categories (Turner, 1994, p. 199 as cited in Saldaña, 2013, p. 88). For example, first-cycle descriptive codes applied in this first-cycle coding included: “data source (used),” “data source (mentioned),” “data source (desired),” “race,” “equity,” “membership,” “Noted speaker – [NAME],” and so forth. In Vivo codes were applied to words or short phrases from the actual language in the transcribed interview data. During the pre-coding exercise, I created a list of a-priori provisional codes based on the theoretical framework and what I expected might appear in the data. These provisional codes were included in the first-cycle coding of the documents/artifacts and interviews. Example codes included: “cues,” “identity,” “action/enactment,” “power,” and “voice.”

During this first-cycle coding process, analytic memos were written to capture questions or ideas that felt relevant to my own sensemaking of the information. Before second-cycle coding was applied, these codes were reviewed again, and were recoded and/or collapsed based on new codes or broader categories that emerged.

**Secondary Analyses - Second-Cycle Coding**

After multiple rounds of first-cycle coding to identify major themes and patterns within each data set, I commenced second-cycle coding to reorganize, classify, and synthesize the first-cycle codes into a more succinct list of categories. A final round of analysis was conducted with codes being combined into broader categories or renamed to reflect the information that represented similar ideas.
Additional Analyses

EDIG Attendance

EDIG attendance data were analyzed by developing a heatmap in Excel. Utilizing official meeting minutes, personal observation notes, and unofficial documents from the two UCLA doctoral student notetakers, attendance from 19 EDIG meeting dates (out of 20 total) were included in the analysis. Total meetings attended by each member, number of attendees per meeting, and average and median attendance by College and UCLA members were also calculated. The number of weeks between meetings was also documented. This de-identified analysis is shown in Appendix A.

Data Source Patterns

A significant theme that emerged from the coding of documents/artifacts and my observation notes centered on the data sources themselves. As the EDIG was an inquiry group created to focus on data, I felt it was crucial to understand the patterns associated with data sources that were included in the group meetings and whether they were used, mentioned (e.g., a desire to be discussed/included in future meetings), developed based on group needs, or never followed through upon. I noted these topics could be separated into two overarching buckets, with the data sources aligning with “student” or “faculty” related information. To analyze the patterns associated with the data sources, I developed two flowcharts with data sources documented from the second EDIG meeting (first meeting officially documented) to the 20th meeting in June 2019. The first flowchart includes “data sources used” and the second flowchart depicts “data sources mentioned” as well as an indication of whether a data source mentioned was “desired,” or “existing.” Both flowcharts depict the data sources broken out by student or faculty to provide an overall visual of which types of data were most often discussed in the EDIG. Using these two flowcharts, I combined the
information into a final visual that depicts which data sources and types were explored by the group. These results are covered in Chapter 4 Section 4: Acting on Data.
Chapter Four is organized in six sections: Data Inquiry Group (DIG) Overview, Membership Matters, Identities as Influential Factors, Acting on Data, DIG Lessons Learned, and Personal Sensemaking. The first section provides an overview of the Research Practice Partnership (RPP) between UCLA and the College and the creation of DIGs. It includes general information on structure, membership, and the differences between the two data-focused inquiry groups. The second section, Membership Matters, focuses on the EDIG and examines who is in the room, who is not in the room, and how membership impacts the trajectory of the group in addressing the equity gap in student achievement. The Identities as Influential Factors section takes a closer look at the ways personal and professional identities, including my own, contribute to the learning and sensemaking that took place in the EDIG and influenced what cues were extracted and embraced. The fourth section, Acting on Data, explores: (1) what data sources were used, desired, developed or abandoned; (2) how members influence these choices; and (3) the ways in which EDIG members enacted the cues from this environment. Section 5, DIG Lessons Learned, highlights the strengths, limitations, and lessons learned from the first iteration of the two data-focused inquiry groups implemented at the College. Finally, as this study is focused on sensemaking, this Chapter concludes with a section on Personal Sensemaking related to the results discussed therein.
SECTION 1: Data Inquiry Group (DIG) Overview

“The purpose of the equity DIG is to try to get to the place where increased understanding can lead to an actionable course.”

Genesis of DIGs at the College

The Guided Pathways program at the College is unique in that the Associate Dean and administrative staff have actively worked with external partners, such as UCLA, to collect data and evaluate the program since its inception. This Research Practice Partnership (RPP) between the Associate Dean and Dr. Tina Christie from the UCLA Graduate School of Education and Information Sciences has been in place for over 20 years and they often work together to create ways to assess the program and determine actions staff can implement to ensure student success. When asked how Guided Pathways measures success of its students, one former research analyst at the College stated:

They probably measure it better than any other program on how we measure success on an institutional level anyway. Because I think they have that relationship with UCLA, so there is again, in comparison to many other things, more of a regular self-evaluation process that goes on there. And I think that they value it. [The Associate Dean] will carve out some money for evaluation from all of the Title V grants he gets, and I wouldn’t say that’s common at all. So, I think in that regard, they are better at it.

Through this strong connection with the Associate Dean, Dr. Christie has developed relationships across the College campus with other program deans, administrators, faculty, staff, and institutional researchers. For several years, the Associate Dean and Dr. Christie discussed ways to more deeply investigate the work of the Guided Pathways program using all the resources at their disposal, including data from the institution and the evaluations previously conducted, the faculty
and staff who work with Guided Pathways students, and the students themselves. According to the Associate Dean, Dr. Christie had often talked about forming a group of practitioners to engage in an inquiry process around data, specifically to understand “what happens when a group of people talk about data and are informed by data, and where does that go?”

The Associate Dean had previously been involved in an inquiry group hosted by the Carnegie Foundation that he found to be “extremely powerful,” and was open to the idea of using data to ground inquiry. Using their connections on campus, the initial steps to form a Data Inquiry Group (DIG) were taken in early 2018 by holding a meeting to discuss issues or problems that might be worth exploring using data. The first meeting was comprised of the Associate Dean of Guided Pathways, Dr. Christie, one of her UCLA doctoral students, the Executive Director of the Office of Institutional Effectiveness, institutional research analysts, and faculty and staff associated with Guided Pathways. One issue that rose to the top centered on the equity gap in achievement where Black and Hispanic or Latino/a/x students had lower success rates than that of their White and Asian counterparts. All community colleges in California receive funding to address the equity gaps in their institutions, but the problem persists at the College and within the Guided Pathways program itself. Even with the same access to priority registration, hands-on support staff, and dedicated resources, these two student groups were still completing at lower rates than their peers in Guided Pathways. As a program originally developed with the intention of decreasing equity gaps, the group unanimously decided closing the gap was critical and focusing on data that might explain this issue and lead to actions was a top priority.

Although the group would be comprised mostly of individuals associated with Guided Pathways, the members felt any information that came out of this DIG would be beneficial to both the program and the College itself, therefore it was important to include other key administrators,
such as the Director of Student Equity in the development of this group. Overall, the Associate Dean hoped the DIG would “serve as a model for how a group of people can come together to address equity, so what rises up can be put forward to other groups hoping to do this work as well.” This data inquiry group dedicated to equity, or the EDIG, began by investigating the equity gap related to College 1, a 3-unit California University transferrable course all Guided Pathways students take in their first semester. The course is designed to ease the transition into college and focuses on improving reading and research abilities, developing communication skills, and learning about time management, goal-setting and other life skills to help them succeed in their college experience.

Within the RPP between the Guided Pathways program and UCLA, a second priority area for exploration was identified as career and major exploration. As a community college focused on successful transfer of students, the focus on career Guided Pathways was less developed, but the Guided Pathways model requires institutions to incorporate paths for students that align with further education and career advancement. Over time, the College became increasingly aware of its gaps in knowledge and knowhow related to guiding students’ major and career decision-making (Neri, 2019). A second DIG, focused on careers (CDIG), was developed to collect data and investigate the student Guided Pathways related to majors and career trajectories. The CDIG was also facilitated by external researchers from UCLA.

**DIG Structure**

EDIG and CDIG meetings took place on the College campus to encourage greater participation of College faculty, administrators, and staff. Scheduling required flexibility, therefore meeting times, locations, and length varied for both groups. Subsequent meetings were scheduled at the end of each session based on availability of those in attendance, with the Guided Pathways Associate Dean (who consistently attended both meetings) finalizing and sending calendar
invitations for future meeting dates, times, and locations to group members. Both groups were facilitated by two different UCLA researchers and their doctoral students, and membership of groups varied due to the focus area. The size of each group differed, with the EDIG being smaller than the CDIG. Key individuals took part in both EDIGs and CDIGs, so there is overlap between the two data-focused inquiry groups in respect to voices in the room, knowledge, and representation of information.

The structure of the EDIG was intentionally informal as the aim was to “see where the data leads” the group in discussion, next steps, and future action. Although Dr. Christie served as a facilitator, she was not the owner of the group and ownership was to be shared amongst the EDIG members. The meetings were intended to be organic, “free-flowing,” and evaluative in nature. The CDIG, in comparison, was typically more formal and framed by a research agenda. These meetings were structured with agendas, presentations, and activities focused on research questions defined at the outset of the groups’ formation.

In collaborative inquiry, there is no defined structure for success, however, it can be inferred from the literature that in order for multiple inquiry cycles to occur, group meetings should be grounded in the three key components: inquiry, reflection, and action (Kasl & Yorks, 2002; Reason, 1999). This can be accomplished via different activities required both inside and outside of the groups to ensure learning is taking place. By developing a more structured approach to meetings, members can more readily share questions, determine action steps, reflect individually and collectively, and assess the impacts of their actions taken based on the data used.
Group Membership

EDIG Membership. The EDIG was comprised of UCLA researchers, including Dr. Christie, two doctoral students, and me. Dr. Christie served the group as a facilitator and the doctoral students served in multiple capacities including notetakers, instrument developers, data collectors, and presenters. My role was as a participant observer. From the College, core members included the Associate Dean of Guided Pathways, the Faculty Lead of Guided Pathways, the Executive Director of Institutional Research, institutional research analysts, the Director of Professional Development, the Director of Student Equity, and the Counseling Faculty Lead. Membership was not set in stone, and different administrators or staff were invited and attended group meetings over time.

CDIG Membership. From the College, the CDIG included the Associate Dean of Guided Pathways, the Faculty Lead of Guided Pathways, the Executive Director of Institutional Research, institutional research analysts, the Director of Student Equity, the Counseling Faculty Lead, Guided Pathways coaches, the Guided Pathways Lead Coach, career counselors, job developers, the Executive Director of Economic Workforce Development, and the Vice President of Student Services. In addition, three students from the College attended CDIGs to provide their perspectives. UCLA representatives included Dr. Rios-Aguilar as facilitator, and three doctoral students who collected data and presented findings to the group. Similar to the EDIG, membership was fluid in this group, and different administrators or staff would attend when available or be invited based on specific topics to be covered. The key differences between the two data-focused inquiry groups is shown in Table 4.
<table>
<thead>
<tr>
<th></th>
<th>EDIG</th>
<th>CDIG</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FOCUS</strong></td>
<td>- Equity gap in College 1</td>
<td>- Majors and career exploration</td>
</tr>
<tr>
<td><strong>LEVEL</strong></td>
<td>- Guided Pathways Program</td>
<td>- Institution</td>
</tr>
<tr>
<td><strong>MEMBERSHIP</strong></td>
<td>- Dr. Christie</td>
<td>- Dr. Rios-Aguilar</td>
</tr>
<tr>
<td></td>
<td>- UCLA Doctoral Students in Evaluation</td>
<td>- UCLA Doctoral Students</td>
</tr>
<tr>
<td></td>
<td>- Director of Professional Development</td>
<td>- Executive Director of Economic Workforce Development</td>
</tr>
<tr>
<td>(non-overlapping members)</td>
<td>- Guided Pathways Lead Coach</td>
<td>- Vice President of Student Services</td>
</tr>
<tr>
<td></td>
<td>- Coaches</td>
<td>- Career Counselors</td>
</tr>
<tr>
<td></td>
<td>- Job Developers</td>
<td>- Job Developers</td>
</tr>
<tr>
<td></td>
<td>- Student Representatives</td>
<td>- Student Representatives</td>
</tr>
<tr>
<td><strong>APPROACH</strong></td>
<td>- Evaluation</td>
<td>- Research</td>
</tr>
<tr>
<td></td>
<td>- Informal</td>
<td>- Formal</td>
</tr>
<tr>
<td><strong>SIZE</strong></td>
<td>- Small (average 8 in attendance)</td>
<td>- Medium (average 15 in attendance)</td>
</tr>
</tbody>
</table>
SECTION 2: Membership Matters

“It’s about the relationships the individuals have and that has influence on as to how this group is going to work.”

A community of practice allows for practitioners to come together, share knowledge on a common topic of interest, discuss new concepts related to their work, and to engage collectively to derive meaning from one another. In the case of the data-focused EDIG, membership matters. By examining who is and is not in the room and who has a voice in this group, it is clear the process of making meaning out of these experiences is affected by the individuals with power and their influence over the actions that resulted from this experience.

Who is in the Room?

“Though if we go back to diversity, which continues to be a problem for me. Who is in the room and who’s not in the room? If we’re trying to get voices in the room.”

Meeting Attendance

In a community of practice, levels of participation may vary depending on personal interest, time commitment or ability. Wenger-Trayner (2011) state:

Participation in communities of practice is rarely a person’s main activity or job, so expected levels of participation should reflect this reality. Mainly they should reflect the level of relevance of the domain to the main activities of members. This means that levels of participation will likely be quite different for different people. It is not unusual to have a smaller core group of members who identify very strongly with the community and contribute most of the activity—with concentric bands of participation from very active members to merely passive observers.
For the Guided Pathways community of practice, the “core group of members” engaged in the EDIG included the Associate Dean, Guided Pathways Faculty Lead, Director of Professional Development, Director of Student Equity, Counseling Faculty Lead, and a representative from the Office of Institutional Effectiveness (OIE). The external UCLA partner, Dr. Christie, is also included in this core due to her longstanding involvement with the Guided Pathways program. Although singular titles are provided here, the majority of members had additional roles within the College that informed their perspectives within the group. For example, three EDIG members have taught the College 1 course as faculty. All members chair, co-chair, or sit on campus-wide committees dedicated to Guided Pathways, Student Success, etc. In addition, two members serve on the Academic Senate. The impact of different identities within the group is discussed in further detail in the Identities as Influential Factors section. As noted earlier, membership to the EDIG was fluid outside of this dedicated group, with other College administrators, faculty and staff receiving invitations to attend based on topics or ideas generated in meetings.

For the 19 EDIG meetings that were documented via official and unofficial meeting minutes or my own observational notes, the number of College members per meeting ranged from two to eight participants, with an average of five in attendance. From UCLA, three representatives typically attended each meeting. The attendance of EDIG members is shown in Table 5.
Table 5. EDIG Member Attendance

<table>
<thead>
<tr>
<th>Role</th>
<th>Number of EDIG Meetings Attended</th>
<th>Percent of EDIG Meetings Attended</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>College Members</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Guided Pathways Faculty Lead</td>
<td>18</td>
<td>95%</td>
</tr>
<tr>
<td>Associate Dean, Guided Pathways</td>
<td>17</td>
<td>89%</td>
</tr>
<tr>
<td>Research Analyst (Equity), OIE*</td>
<td>12</td>
<td>63%</td>
</tr>
<tr>
<td>Director of Professional Development</td>
<td>12</td>
<td>63%</td>
</tr>
<tr>
<td>Director of Student Equity</td>
<td>10</td>
<td>53%</td>
</tr>
<tr>
<td>Research Analyst (Adult Education), OIE</td>
<td>10</td>
<td>53%</td>
</tr>
<tr>
<td>Counseling Faculty Lead</td>
<td>6</td>
<td>32%</td>
</tr>
<tr>
<td>Executive Director, OIE</td>
<td>5</td>
<td>26%</td>
</tr>
<tr>
<td>STEM Faculty Co-Lead</td>
<td>2</td>
<td>11%</td>
</tr>
<tr>
<td>Year One Guided Pathways Lead</td>
<td>2</td>
<td>11%</td>
</tr>
<tr>
<td>Dean, Instructional Services</td>
<td>1</td>
<td>5%</td>
</tr>
<tr>
<td>Research Analyst (Workforce), OIE</td>
<td>1</td>
<td>5%</td>
</tr>
<tr>
<td>Dean, Student Life</td>
<td>1</td>
<td>5%</td>
</tr>
<tr>
<td><strong>UCLA Members</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dr. Christie</td>
<td>19</td>
<td>100%</td>
</tr>
<tr>
<td>Doctoral Student 1</td>
<td>19</td>
<td>100%</td>
</tr>
<tr>
<td>Doctoral Student 2</td>
<td>14</td>
<td>74%</td>
</tr>
<tr>
<td>Me</td>
<td>13</td>
<td>68%</td>
</tr>
</tbody>
</table>

*Note. Equity research analyst left the College in September 2018.

Meeting Schedule

Meetings were scheduled based on the availability of members in the room, therefore, EDIG meetings were inconsistent in the amount of time that transpired between meetings. The time and days varied, and the length of meetings ranged from one hour to two-and-a-half hours. For
scheduling, all members were asked at the end of each meeting to review their calendars and a future date and time were selected at that moment. Those not in attendance would receive a calendar invitation afterwards with the meeting information, however, as they were not included in the scheduling discussion, they may have had conflicts and been unable to attend the next gathering. This variability in scheduling potentially impacted the momentum of the group and the members who attended subsequent meetings. In addition, the variability in timing prompted the need to revisit information from previous meetings. In my observational notes, it was noted numerous times when EDIG members queried the group: “Remind me who we are trying to go after?” or “What was it we were trying to do here?” The average number of weeks between EDIG meetings was 3.4, with six meetings occurring more than a month apart. Table 6 shows the number of weeks between EDIG meetings.
Table 6. EDIG Meeting Schedule – Number of Weeks Between Meeting

<table>
<thead>
<tr>
<th>EDIG Meeting</th>
<th>Weeks Between Meetings</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDIG #1</td>
<td>--</td>
</tr>
<tr>
<td>EDIG #2</td>
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</tr>
<tr>
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<td>1</td>
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<tr>
<td>EDIG #9</td>
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<td>1</td>
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<tr>
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<tr>
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<td>2</td>
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<td>EDIG #19</td>
<td>5</td>
</tr>
<tr>
<td>EDIG #20</td>
<td>9</td>
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</tbody>
</table>

*Note.* Break between September and Thanksgiving holidays due to semester starting.
Membership Attendance Variability

OIE Representatives

The EDIG was reliant on consistent participation and provision of data from institutional research analysts housed in the OIE. When the EDIG started, one research analyst, who was grant-funded to focus on student equity and worked closely with the Guided Pathways program as a UCLA doctoral student, was assigned to the group. In her role, she acted as a conduit between the EDIG and the institutional data that existed at the College. When interviewed, she expressed that having an institutional researcher in the room is critical:

But that was my battle cry always – you need a research person, whether it’s IR or an evaluator, some research person or some data person in the room because they are going to set the parameters of what’s feasible.

Even in a programmatic way.

The equity-based research analyst left the College in September 2018 after attending 12 meetings. Approximately six months into EDIG, a second research analyst, grant-funded to focus on non-credit adult education, began attending meetings at the suggestion of the Executive Director of OIE. The non-credit adult education-based research analyst attended 10 meetings between his first meeting (EDIG #7) and the twentieth EDIG. A third research analyst dedicated to workforce attended the first documented EDIG but did not return. Overall, OIE had at least one representative attend all but three meetings of the EDIG during the time of this study.

Infrequent Attendees

The EDIG was “open” to other faculty, staff, and administrators, but invitations were typically sent by the Associate Dean or Guided Pathways Faculty Lead. The invitation list did not remain consistent over time, with some individuals being included or excluded from email
solicitations as EDIG progressed. In the early stages of EDIG development, the Dean of Instructional Services attended a single meeting and did not return. Halfway through the academic year, the Dean of Student Life also attended a single meeting yet did not attend a second. The STEM Faculty Co-Lead and Year One Guided Pathways Lead also attended two meetings each. The Associate Dean commented that frequency of attendance is also impacted by lack of time or perceptions of value:

> Number one, people are busy, right? You heard what I said. I’m always busy. And I always come, so you know at the end of the day people do what’s valuable. And I’m not whacking anybody, and it’s not like people think this is not valuable, but other things rise up that they think is more valuable, right? And so that’s just the way it goes. That’s life in the higher ed or “real” world.

**Attendance Sharing**

Two core members, the Director of Professional Development and Director of Student Equity, often shared responsibility for attending EDIG meetings, as noted in observational notes: “[Other member] could not be here today, so I’m here to represent her as well.” The two members showed up alone to almost half of the scheduled meetings (48%) and attended seven meetings (37%) together. Three meetings (16%) were unattended by both members. One member noted the attendance sharing that occurred and showed concern over using the time of those two members wisely, asking: “Were we using their time effectively? If we have them as resources, how are we using their expertise in these conversations? Were they engaged? Do we know?” Attendance at the EDIG meetings was not mandatory, however, key characteristics associated with each of these individuals and their roles at the College may have potentially been more relevant during meetings when both were in attendance.
Waning Participation

The EDIG was initiated in early 2018 and continued through the following academic year of 2018-2019. During summer months, participation was higher on the part of College representatives, but participation waned when the new academic year commenced. Beginning in fall 2018, overall College member attendance was generally lower, with three of eight EDIG meetings only having three members from the College in attendance. Overall, UCLA representatives outnumbered College participants in EDIG meetings approximately 21% of the time. One member stated, “I think that participation has fallen off and I see that as a limitation.” In contrast, a different interviewee suggested ebbs and flows in participation can be beneficial to a group:

> We’re talking about inquiry which is a sustained discussion, so it’s not scattershot. You hope that it’s got some sort of rhythm and flow to it…In a perfect world, you’d get a community of learners who stayed together. The counter argument is, it’s kind of interesting, when somebody new comes in and kind of blows that up in an interesting way, or somebody leaves and their voice is now missing. All those dynamics that make for conversation and learning are interesting.

Existing Relationships

Learning and sensemaking are grounded in both individual and social activities. As a social process, interactions and a “common language” shape interpretations and the act of interpreting that takes place (Weick, 1995, p. 39). Sensemaking is never a solitary activity because anything a person does internally is based on others, whether perceived or real, and the context in which a person resides will affect how they define, justify, or act on information. The Guided Pathways community of practice, and thereby the EDIG, is defined by the existing relationships of its members and the social interactions they share. The creation of the data-focused inquiry groups was predicated by an
existing RPP between the Guided Pathways Associate Dean and UCLA, and individuals invited to the initial EDIG meetings had established relationships with core group members. Although the Guided Pathways program involves a variety of other faculty, administrators and staff, the core group members ultimately determine who joins the group. In some ways, these existing relationships also affect who maintains involvement with the EDIG. For example, if an individual who attends one or two meetings does not get an invitation to attend a third based on perceived lack of interest, then they are potentially never asked again.

The ties to the group membership are inherently social, and the key players know each other in multiple capacities. These relationships and knowing what to expect from different personalities in the room also determines what takes place in the EDIG context. One interviewee commented, “I think the other thing to think about how this DIG goes, or sort of what it is, it’s also personalities and relationships. For everybody there, everyone knows each other really well.” Another noted how existing relationships and the social requirements attached to them influence what happens within a group setting, saying, “Well, you know, this whole thing is all a bit of a performance, right. There's the social aspects of it. I'm a little hesitant to call it theater, but we're all in a room and we're all displaying ourselves, or not.”

With these existing relationships comes less potential for conflict or disagreement, and a greater sense of being on the same team. However, it also meant deeper inquiry may not have taken place. One of the UCLA doctoral students noted,

> Overall, I thought it was pretty respectful and amicable and I felt like most of the time they wanted to hear other perspectives. I think if there were a perspective that they did not agree with, they were squashed. And the topics were changed, or there was a little bit of defensive talk. But they are super protective of College 1 and the curriculum.
With EDIG members performing for one another in a group setting and allowing each other to act in ways that preserved everyone’s “sense of self,” the sharing of resources and knowledge within the room was minimized to a degree and the existing relationships were spared from conflict that could alter their interactions.

Who is Not in the Room?

“I think if you look at the attendance, you would find it was mostly White people attending regularly. It sure felt like that.”

“Diversity asks, ‘Who’s in the room?’ Equity responds: ‘Who is trying to get in the room but can’t?’” (Lazarus-Stewart, 2017). In the case of the EDIG, the membership was defined by those who felt empowered to make decisions for the group on who to include in future meetings. Although numerous members of the EDIG were ethnically diverse and had unique roles in the institution, the EDIG core group of members often discussed who was not in the room and how membership should be expanded to other individuals, groups on campus, or students. These conversations were recorded in both official meeting minutes and my own notes, however, there was little effort to embrace inclusion of others and allow for outside perspectives to be in the room. Sensemaking relies on the social interactions of individuals and how unique identities coalesce to interpret and act on cues extracted from the environment. By defining who is not in the room, there can be a greater understanding of what the EDIG engaged in, why they did it, and to what effect.

Ethnic Diversity in Membership

In higher education, there is a dearth of faculty and administrators of color (Bollinger, 2007; Taylor, Burgan Apprey, Hill, McGrann, & Wang, 2010). As individuals from underrepresented minority groups constitute an increasing percentage of enrolled students in community colleges, it is
critical for institutions to increase the diversity of their staff to serve as role models for students. Enrollment trends have shown a steady decline of White students, but a marked increase in the number of Hispanic or Latino/a/x students enrolled in community colleges.

Although demographics of students have shifted, the characteristics of faculty and administrators in higher education have not kept pace. According to the CCCCO’s Management Information Systems Data Mart (n.d.), of the 92,332 faculty and staff employed in California community colleges in Fall 2018, White Non-Hispanics/Latinos represent the majority of Educational Administrators (51.6%), Tenured/Tenure Track Academics (59.8%) and Temporary Academics (58.7%). Classified staff have greater representation of other ethnicities, however, White Non-Hispanics/Latinos still make up nearly 40% of these positions as well.

In the EDIG, the majority of members who comprised the core group from both the College and UCLA were White. The equity-based research analyst and Director of Student Equity were Latina, and the adult education focused research analyst was Black. One member noted, “I think if you look at the attendance, you would find that it was mostly White people attending regularly. It sure felt like that.” The attendance patterns reflect this, with the White majority maintained in all meetings, and approximately 25% of meetings having no persons of color in the room. With a focus on the equity gap, this discrepancy in diversity of membership was not lost on the members of the group. One member stated:

There's really attention around membership of race and ethnicity when you're trying to talk about equity because what can happen, as we all know, is that our colleagues of color can get tapped for every committee and initiative so that there's representation of that voice. But the flip of not having them there is that we might not really be peeling the onion to the extent that it needs to be peeled. We might just be stuck on an outer
layer when really we need to go a little bit deeper. So, definitely I think that group would be enhanced with more individuals of color at the table.

Varied Roles in Membership

Diversity in membership not only applies to race or ethnicity, but also institutional roles, backgrounds, and expertise. As one member put it, “We're talking about the equity gap and it sure seems really obvious that we should not have just a difference in color.” The EDIG membership was comprised of key administrators, faculty and staff associated with the Guided Pathways program, however, there were numerous instances of discussion on suggested members for inclusion. Student representatives who were currently in or had completed College 1 were noted as suggested members in four separate meeting minute documents. Although mentioned numerous times, students were never included in EDIG meetings even with the Associate Dean stating he would be able to pay for student representative attendance. Lack of student attendance did not sit well with at least one member, who stated:

I know I brought up students a number of times and that was just blown off and they wanted to focus more on faculty, which is important because they're teaching the classes. But I felt like it was more top-down, so admin, faculty, but really, who was being affected by this? The students, they are the ones in the gap.

A second member also brought up students but felt that perhaps they were not as valuable in this instance as in others, commenting, “I might get raked for saying this, but I don’t know that students always provide insightful information like we think they will.” A third member was less committed either way, “I would like to say that the student voice is powerful and valuable. I always want to say that. I don't know if it's completely true, but I like to hang onto that.”
Inviting additional College 1 faculty was suggested twice, with a note in the seventh EDIG meeting to “include them after interviews were complete.” One member mentioned the absence of other College 1 faculty, and specifically instructors of color, commenting, “…if I’m in there and it's just you guys [UCLA] and [the Associate Dean], and no one in there has taught College 1, then it's me just trying to represent everything from one lens of the White lady who created it and has taught it a million times.” Another interviewee reflected:

I think there need to be other voices in the room that can speak to College 1 in different ways to provide diversity that will lead to change in ways that [other member] may not have expected. It's not that she wouldn't, but it's like, ‘Oh, you just said something interesting that I hadn't thought of and that could lead somewhere.’

There were two instances in which the Program Director of the African American Guided Pathways program, the learning pathway designed to enhance the experience of Black students, was suggested to join the EDIG. According to EDIG members, this program operates separately from the Guided Pathways program and relies on their own program-specific data. As an expert in both the model and with a great understanding of the College, having the Program Director in the EDIG would have provided a valuable perspective and lens on equity. Finally, Guided Pathways tutors and other equity-based groups (e.g., Men of Color Initiative) were suggested a single time as being potential members. Of the suggested members, it is unclear if they were not invited or if they were invited and did not attend, however, none of these individuals or groups attended meetings during the academic year.

One interviewee noted that even though additional members were suggested, perhaps the lack of follow-through was intentional. She stated, “I can see when [another member] says ‘we need new people,’ but is he only saying that because it’s the thing to say? Do you really want other people
there who have a different perspective from you potentially?” In addition to having different perspectives, she noted how others may have been excluded simply due to preference. For example, she mentioned an institutional research staff person who would have been invaluable to the group based on what was being discussed, however she knows that this person is not very well liked based on his personality. She said, “so he’s not going to invite him and he wasn’t invited from the get-go,” and that “the personalities and past relationships” that exist on campus dictate who was ever actually considered as a potential EDIG member. In a successful community of practice, the inclusion of peripheries is a key to success as it allows for the group to better understand how they operate. With limiting the membership to those with whom there were already existing relationships or comfort, the EDIG prevented greater exposure across campus via the brokering and transferring of information that would have occurred if additional members mentioned for inclusion were welcomed and asked to be actively involved.

Who Has a Voice?

“Of the individual identities in the room, there were some big talkers in this group, so some folks didn’t necessarily get to talk.”

The identities of group members and the social context within which they work affects the learning, sensemaking, and resulting actions that take place. Embedded contexts, such as the EDIG, shape the conditions for sensemaking by influencing the patterns of social interactions (i.e., influencing who is talking with whom about what) and subsequently the actions that result from such engagement (Vaughan, 1996). Moreover, those who have power or privileged identities in certain situations can impact the complex sensemaking processes more than those who have less perceived power. When taking consideration of who is in the room, it is not only important to think about who has a voice and uses it, but also to think about how dominant personalities and power
dynamics affect members who are present. To this effect, Lazarus-Stewart (2017) queries: “Whose presence in the room is under constant threat of erasure?”

**Dominant Personalities**

The EDIG group members note feeling “respected” within the group, however numerous interviewees indicated that two members of the group were dominant, and this affected the dynamics and direction taken by the group. One noted, “Of the individual identities in the room, there were some big talkers in this group, so some folks didn't necessarily get to talk.” A second interviewee echoed this, saying “whoever has the loudest voice has the floor and gets to make decisions.” A third noted that having two very strong personalities in the room, “personalities that want to talk a lot, personalities that have a lot to say” was a limitation that affected the work the group was attempting to accomplish. Interestingly, when interviewed, the two individuals suggested as having the dominant personalities in the room fingered the other person as talking too much and did not recognize their own dominant voice in the broader context.

With these strong personalities in the room, I noted in my observation notes the frequency with which other members of the group spoke, or what happened when they entered the conversation. In at least four meetings, one core group member did not speak for the entire first hour of a meeting. When she did speak, her comments were minimal but focused clearly on equity and asking questions of the group to better understand how the conversations related to the gap. One of the dominant voices in the room worried about those who were more passive in the group, linking their unwillingness to speak with their frequency in attendance:
Like the people who are not saying anything? Who's just listening, or who stopped coming? Why did they stop coming? Were they uncomfortable? Did they think it wasn't valuable or other things are simply more important, so they can't come?

As a dominant personality in the meetings, his assertion clearly shows that he is making connections between possible discomfort and passive engagement, but rather than tying it to lack of power in the room he assumes it is because the quiet members do not find it “valuable.”

The two personalities suggested as being “dominant” by interview participants was confirmed by analyzing the frequency of times their names appeared as noted speakers in official minutes and by review of my own observational notes. Both members were White and had long tenures at the College, two characteristics which may have potentially contributed to their willingness to and the group’s acceptance of their controlling the conversations that took place.

**Power and Control**

In communities of practice, the notion of power is inherent but not explicitly addressed. However, Wenger believes “central to the theory is the idea that learning from a social perspective entails the power to define competence” in the group (Farnsworth, Kleanthous, & Wenger-Trayner, 2016, p. 151). Weick’s theory of sensemaking assumes that even though it is a complex process, sensemaking is democratic, whereby all voices are more or less equally important. Critical sensemaking asserts this is not true, and some individuals in an organization or group may have more influence on meaning than others and exert that power over the sensemaking of other members (Helms Mills et. al, 2010, p. 189). The EDIG was established by Guided Pathways administrators and external UCLA partners to use data in an inquiry process around the student equity gap in achievement. By focusing the group on the College 1 course for new, first-time
freshman, the locus of control was established to fall squarely with those who are intimately involved with this course, whether it be as faculty, curriculum developers, or program providers. Outside the Guided Pathways “bubble,” the group technically had no control, but the “control thing is big because they can control the College 1 instruction to a certain extent.” With this focus, those in the room with the most intimate knowledge or self-perceived expertise around College 1 were able to exert more power than those with less experience in the course. Not only did those with more dominant personalities or experience lead conversations, but they also greatly influenced the direction the group took conversationally, with data sources, and any actions that resulted from meeting.

*I think it [membership] impacts us a lot. It takes the direction of the DIG for that particular meeting. Especially with no agenda. When [Director of Professional Development] was there, it was more of a discussion of professional development. When [Director of Student Equity] was there it was more focused on equity. Yeah, I say it impacted it a lot.*

Although the group was intended to use data sources to explore the equity gap and dive deeper, the former research analyst hinted that one core group member had asked for College 1 equity data months previously to use it for making decisions for hiring adjuncts and modifying the curriculum. In this way, the analyst felt that “it was already in her mind and was something she was asking for, and maybe she had already laid the path for the group to go that way.” By embracing her power to make decisions and act, the trajectory of the group may have been heading in a predefined direction all along.
EDIG Members in CDIG

The CDIG was a larger group, averaging fifteen members per meeting compared to eight per EDIG meeting. With a different scope, one more focused on the institutional implementation of Guided Pathways and its role in career exploration for students, the CDIG members varied in terms of professional roles and their capacities on campus to implement changes based on the data inquiry process. Members from the College included the Guided Pathways Associate Dean, the Guided Pathways Faculty Lead, the Executive Director of Institutional Research, institutional research analysts, the Director of Student Equity, the Counseling Faculty Lead, Guided Pathways coaches, the Guided Pathways Lead Coach, career counselors, job developers, the Executive Director of Economic Workforce Development, and the Vice President of Student Services. In addition, three students from the College attended CDIGs to provide their perspectives. Three core EDIG members had overlapping membership in the CDIG, including the Guided Pathways Associate Dean, Guided Pathways Faculty Lead, and Counseling Faculty Lead. As the champion of DIGs, the Associate Dean took a similar role in CDIG by attending, scheduling, and sending meeting invitations to other members of the group. The Faculty and Counseling Leads were not originally involved in CDIG, but upon learning of its existence asked for invitations and “inserted” themselves.

Compared to the EDIG, the membership of CDIG was more varied and included greater representation from multiple levels at the College. This variation in membership flattened the control of the room and put it squarely with the external UCLA partners. In this capacity, the UCLA researchers led meetings, provided focal discussion points, and asked questions of the entire group as opposed to the EDIG where members were more involved in controlling the work and direction of the group. When asked about their involvement in the CDIG, the three EDIG members reported
finding great value in the research and discussions taking place around careers and how it seeped into the ways they considered College 1 going forward. One member stated, “Frankly, this is something that was not on our radar when we started with Guided Pathways and College 1, the importance of majors and careers. So that’s something that’s come out of this work…to help students think about their career and how education and having a major connects with all of that.” Their involvement in the group was reflected in meeting minutes towards the end of the academic year, with conversations centered on activities to incorporate in College 1 based on considerations of career and identity for Guided Pathways students.
SECTION 3: Identities as Influential Factors

“We all have unique sets of experiences that we bring to a conversation like that.”

Member Identities

The identities of each person in a room can contribute to what an individual says, how they interact with others, and what influence they have. In a community of practice, the identities of members are affected through the co-construction of knowledge, and acquisition of new knowledge via other community members through active participation. In the EDIG, the social process by which members engaged with one another was influenced by who they perceive themselves to be and how they fit within the group of practitioners. All individuals are shaped by past experiences and identities are formed through a lifetime of interactions with the world and other people.

Identities are constituted out of the process of interaction. To shift among interactions is to shift among definitions of self. Thus, the sensemaker is himself or herself an ongoing puzzle undergoing continual redefinition, coincident with presenting some self to others and trying to decide which self is appropriate. (Weick, 1995, p. 20)

As humans, our goal is to preserve our sense of self by presenting as how we want others to perceive and recognize us. For example, in a group context in a professional setting, a person would want to be perceived and recognized by others as being competent, knowledgeable, useful, etc. The way individuals collaborate, advocate, and make decisions is linked to how they relate their own identities to a given situation and what that demands of them. Identities are complex, varied, dynamic, and fluid, as such, the information gathered and reported in this section is by no means reflective of all aspects associated with the identities of EDIG members.
In the context of the EDIG, identities of the members are both personal and professional and inform the ways in which they interact with others and who has a voice in the room. Although we desire for others to acknowledge our identities, rarely are they discussed or explicitly displayed in ways that their influence can be fully understood. For this study, the identities of members are based on demographics, observed behaviors, comments that a person ascribes to themselves, and details tied to their previous roles in higher education and current role at the College. Of the College members who attended six or more meetings, all but one member had an advanced degree (Ph.D. or Ed.D.), and racial and ethnic demographics varied with three White representatives, two Latinx, one Middle Eastern, and one Black. In this group, four College representatives were female, three were male and ages ranged from mid-30’s to mid-60’s. Length of time employed at the College varied significantly within the group, with one member having been in his role for less than one year compared to two others who had been there for more than 20 years each. All UCLA partners in the room, including myself, were White women ranging in age from late 20’s to late 40’s. Outside of Dr. Christie, myself and the three other women from UCLA were in different stages of doctoral studies.

As noted previously, members of the EDIG came from different departments at the College and many served in multiple capacities across campus. In this way, professional identities brought to the group differed dramatically for each person. For example, some members strongly identified as being instructors – three members had taught College 1, but only one member was also appointed as faculty in a department. Three members had positions directly related to faculty, whether as Guided Pathways Faculty Lead, Counseling Faculty Lead, or the Director of Professional Development for faculty. Two members served on the Academic Senate, three members were on the Guided Pathways Success Committee, and four members served on the Student Success Standing Committee. Through these multiple appointments, the reach of each person was extended far
beyond the Guided Pathways program. Moreover, by focusing on College 1, a course taught by faculty from all disciplines, the learning and sensemaking that took place in the EDIG had a greater potential to affect other areas of the college. One member noted,

The benefit of focusing on College 1 is because it is interdisciplinary. You have faculty from across different divisions that do teach College 1, so that’s a plus in a sense that if you’re going to revamp the [College 1] curriculum you are going to expose many different faculty to professional training that’s going to touch on equity and things of that nature. So that’s a positive — that’s a good thing about focusing the group on the College 1 course.

Identity Profiles

To better understand how individual identities influenced what took place in the EDIG, I developed profiles of three key members based on interview data, observational notes, personal knowledge, and College documents. All three of these community of practice members attended 12 or more EDIG meetings and participated in semi-structured interviews. In addition, I have included an identity profile of myself. Subsequent analysis reflects my personal sensemaking of how different identities influence the collective or individual sensemaking that takes place in a group context such as the EDIG.

Associate Dean — Identity Profile

The Associate Dean is a White male in his mid-60’s who has been at the College for over 20 years. He is tall, thin, and dresses sensibly in business casual attire consisting of fitted plaid button-down shirts and slim jeans. He willingly leads conversations, gathers attention of his peers when he feels it is veering off course, and is comfortable in any situation, saying, “Maybe it’s just my identity, but I don’t see myself as this, ‘Oh, I don’t fit in there.’ I kind of fit in anywhere I want to be.” His
“world view is that everything you do is, should always be thought about, reconsidered, a tweaking endlessly kind of thing,” which drove the development of the EDIG. Although he does not explicitly state he is in charge of the group, he said that both UCLA external partners “probably see me as the go to person, and if nothing else I'm ... It's just something I know about myself and my identity. I'm reliable, I'm consistent, I'm structured, and I'm organized, so I'll crack onto it.” Ultimately, “somebody's got to do it and I'm awesome, and the guy that does it. It's not that somebody else couldn't or wouldn't, or perhaps couldn't do it better but I just end up doing it, and so I schedule the meetings. Send the reminders, etc.” He “has not taught College 1,” but he recognizes the “power” it can have. However, as a former instructor, he “thinks College 1 needs some work.” He feels that student identity, or lack thereof, contributes to why College 1 students are not achieving. Some of the “complicated reasons” could be “they're afraid of doing something that's going to be judged. Or it's uninteresting. They don't like it. They think it's stupid.” In general, the curriculum doesn’t sit well with him, even as he reflects on his experience as a “White middle-class student who was supposed to do well in everything, so I would just sit there bored to tears and get an A in the class and leave…and somebody else, I understand, is not going to do that.” By creating the EDIG and participating actively in it he wants to use data to “lead to action and transformation.” This desire for action over deep inquiry resulted in many meetings ending with him saying, “Ok, what’s next? What do we do about it?”

**Guided Pathways Faculty Lead – Identity Profile**

The Guided Pathways Faculty Lead is a White female in her mid-40’s who has been teaching English and English as a Second Language (ESL) for over 20 years at the College. She is a tall woman with a commanding presence and loud, boisterous laugh. She wears nice patterned blouses, slacks or dark jeans, and sensible flat shoes. She is involved in multiple initiatives across campus and
feels comfortable “inserting” herself into anything she feels is valuable to her work. For instance, when the CDIG was initiated she “wasn’t invited, there were no faculty in the room, and I do a really good job of finding out about stuff and inserting myself. So I invited myself to that.” She identifies with her students as a “White lady who grew up in Santa Ana in the mid to late 1970’s, when Vietnamese boat people were coming in, when the whole Mexican gang thing was at a crisis level” and having attended a public school with a less than one-third of the freshman class graduating, “so it’s not like I’m some White lady from Connecticut.” As a White woman who speaks and teaches Spanish to first-time freshman students, the majority of whom are Hispanic or Latino/a/x, she takes pride in treating her students with “authentic care.” She says, “Me, individually, I think I’m much better at addressing my students needs and giving them a warm handoff to anything I can't provide more than any coach or counselor they're going to see once. Cause I know my students, I have a relationship, I’ve built trust with them. I don't think I'm typical.”

She has been part of the Guided Pathways program since its inception and was one of the primary developers of the College 1 curriculum. She is the faculty coordinator and for her “it’s something I have immediate control over, is things like hiring and professional learning of the faculty who teach College 1.” She “created it and has taught it a million times” and is deeply invested in making it a better course with a decreased equity gap in achievement.

**Director of Professional Development – Identity Profile**

The Director of Professional Development is a White male in his early 40’s. He joined the College approximately one year earlier after completing his Ph.D. in urban education policy, and felt the College was an “opportunity” to gain more work in an urban setting with greater “exposure and experience with the core of the education system, the students.” He is of average height, slim, and typically wears solid color button-down shirts and slacks. He is thoughtful in the way he speaks, and
his cadence is measured and specific. When he speaks, it feels as if he has considered all the other people in the room before he selected the words to say out loud, which may stem from the fact he’s “Canadian and likes to stay within the rules.” He “taught for nine years, but in the K-12 system,” and as a new employee at the College, he decided to teach College 1 as a way to connect with faculty. He felt that “in order for me to be better positioned to have conversations about practice with other faculty members, it would be to my advantage to also to be able to claim that, ‘When I'm teaching our students here, this is what I find. This is what my challenges are. This is what I do.’ So it would give me a different kind of position from which to speak in my primary role at the college.” Through teaching students when they first enter the higher education system, he would be able to “have a better understanding of who our students were and their experiences, positives, negatives, assets, challenges, everything that they bring with them to class every day” and then translate that into what faculty might need to address those unique needs. “Coming from a research background with an equity focus” he is clearly invested in using research and theory-based applications to drive change and is an “advocate of research practice partnerships.” He recognizes that the EDIG is based on the “unique set of experiences we bring to a conversation like that” and feels membership matters because he “grew up in a town of 300 people where it’s all about relationships, very much about relationships.”

My Identity

I am a White female who started a Ph.D. program in my early 30’s. I am the only one of four siblings to have gone to college, let alone pursue advanced degrees. Growing up, my parents worked multiple jobs apiece and value was placed more on steady employment and never missing a day on the job rather than being successful in school. Although they did not understand the homework I brought home, they always told me I was smarter than they were. In some ways, I think that idea
stuck and by jumping through all the academic hoops, I am proving it to myself more than them. But the work ethic instilled in me runs strong and I struggle with my identity as a person who would be more comfortable having a job than being in academia. As a student and in my professional roles, my path has never been linear, and I think shifting gears defines who I am. I attended community college classes to supplement coursework in my undergraduate degree, and went to three universities, changing majors along the way but still finishing before my peers. In the five years between my advanced degree programs, I was a social worker, a clinical researcher conducting experimental sessions, a survey instrument developer, a community college liaison on national student engagement surveys, and finally an evaluator. While earning my master’s in public health degree, I realized I did not want to stay in academia but that my goal was to help others collect, understand, and use data they needed or were producing to effect change in their work. In getting my Ph.D. in social research methodology, I hope to provide expertise to organizations on which questions to ask and how to best answer them through data.

**Personal Identities**

The four personality profiles I developed reflect the unique personal identities that EDIG members bring to the table at every meeting. The details shared by myself and the three EDIG members provide information about the upbringings and experiences that shape our senses of self. Although similar in race, differences in the places we grew up, our perspectives on schooling, and the ways we understand our identities associated with academia influence how we receive, process, and value information provided in the EDIG. The identity profiles reveal differences that inform how we interact with one another and construct meaning, but also reflect what aspects of ourselves we are willing to share with others. Comfort with specific aspects of our own identities, and more specifically, with aspects that we are open to telling or showing in public-facing situations, directly tie
to how we want to be perceived by others. This is also true within the EDIG meetings where individuals perform in socially acceptable ways that reflect aspects of their personalities they want others to see.

This need for self-enhancement, or the motivation to maintain, create, or amplify a positive self-image, is reinforced in the social context that EDIG provides to members. By ensuring others in the group perceive and affirm these positive qualities, the personal identities of members are supported and therefore their opinions and feelings within the meeting are validated as well.

**Professional Identities**

The EDIG members are all part of a larger community of practice focused on a Guided Pathways program at the College, therefore, their professional identities were tied to both the institution and the program itself. The individuals came to the group with their own professional experiences, both as former students and as teachers and administrators, but within this context they collectively had a shared repertoire of resources, references, and tools at their disposal to use in addressing the equity issue. The sensemaking process is impacted by an organization’s rules, routines, symbols, and language which provide a routine or script for appropriate conduct of individuals engaging in sensemaking activities (Maitlis & Christianson, 2014). Therefore, the language used in discussions, the implicit and explicit messaging around the College mission, and even the established hierarchy in institutional roles all contribute to the ways professional identities are manifested in the EDIG space. Within this group, specifically among those with longer tenures, there is pride in working for a large, well-resourced community college that has received national accolades for their work on multiple fronts. This pride is also associated with the Guided Pathways program itself, with members noting that “based on anecdotal data,” some think their students are transferring at higher rates and
we’re probably at least double what’s happening as far as degrees…I think we’re at least double what the
general college population is…because we’re better. You look at [other community college] completion rates
and they are more tragic than ours. So I think [the College] is almost double what [other community college]
is, as a whole. And then Guided Pathways, I think, is probably double even that.

The internalized professional pride and sense of doing better work than other colleges is supported
by the development of the EDIG and members committing to using their own data to validate what
they already perceive as happening.

Other aspects of professional identities emerged through stories shared within meetings
about past classroom experiences as instructors or via retrospective anecdotes about their personal
involvement with particular students. For example, one member relayed stories about walking her
own students to the counseling office or meeting them in the computer lab to help them do their
homework. These stories support the professional identity she had created around being a caring
and effective instructor willing to go beyond what other faculty might do to help students succeed.

This community of practice is based in the organization in which everyone works, therefore
the professional identities of members are likely to be more prevalent than personal identities. As
individuals who have dedicated their lives to higher education, the individual EDIG members all
have their own personal experiences as students that led them to their professional roles, but it is the
professional role that ultimately reflects who they are and what power they wield in this particular
context. According to Bandura (1977), we all have beliefs in our capabilities to produce desired
effects by our own actions. These self-efficacy beliefs drive behaviors and ultimately determine how
much we are willing to persevere even when obstacles or challenges are encountered. The desire for
others to perceive us as competent or efficacious is tied to this belief in our own abilities.
In the EDIG, the majority of members reported being “action-oriented,” a part of their professional identity that presumes they are capable of defining a plan of action and executing it successfully. All College members of the EDIG had teaching experience, but all moved into administrative capacities, suggesting their professional identities were based on having broader power over what happens institutionally, not only with students. By working in this group context with other Guided Pathways professionals, members’ perceptions of themselves as competent and efficacious was shown by their attendance, involvement in discussions, and sustained efforts to act on data sources provided to the group. This need for self-consistency supported their professional identities of being reliable, engaged, and willing to act.
SECTION 4: Acting on Data

“What happens when a group of people talk about data and are informed by data, and where does that go? And so now we that actually talked about it, what do we want to do?”

Sensemaking is about “developing a set of ideas with explanatory possibilities” rather than crafting a body of knowledge (Weick, 1995, p. xi). Individuals within an organization “co-construct” “shared” understanding of messages from their environment based on interactions, negotiations, and conversations in their own social contexts (Coburn, 2001, p. 146). In a community of practice, the practitioners share knowledge, learn with and from one another, and through active participation and reification, they produce artifacts through which the new learning is organized. In the case of the EDIG, the Guided Pathways community of practice members engaged in a social process where they enacted tangible outcomes in response to the extracted cues provided via data sources. In the EDIG, the members in the room influenced the data sources that were pursued, and their identities determined which cues were extracted, the connections that were made, and action that resulted from those choices. When thinking about data, one needs to keep in mind that “data is a social process, not just a technical one” (Johnson, 2016), and the ways in which data is selected, combined, analyzed and interpreted affects the students both included in the analysis and those excluded from the analysis.

Extracting Cues with Data

Context matters and the environment can determine what is an extracted cue in the first place, how it is interpreted, and ultimately what action is taken. Control over which cues that serve as a point of reference is an important sense of power (Smirich & Morgan, 1982, as cited in Weick, 1995), and the members within the room dictated what cues extracted from the data were valuable
enough to pursue further and act on. The process of sensemaking “tends to be swift” (Weick, 1995, p. 49) and often those engaged in the work are more focused on the actions and products that result from the process, rather than considering the process itself. Enactment is the reciprocal influence between action and environment during sensemaking, or “the process in which organization members create a stream of events that they pay attention to” (Orton, 2000, p. 231). Action is based on how people notice or select information from the environment, make meaning of it, and then act on those interpretations. These actions then result in developing cultural and social structures and new routines over time, which in turn, enact the environment they are seeking to understand (Coburn, 2001).

As a group dedicated to using an inquiry process focused on data, the members of the EDIG engaged in collective and individual sensemaking based on cues extracted from the data sources that were presented. According to Weick (1995),

> sensemaking is about the enlargement of small cues. It is a search for contexts within which small details fit together and make sense. It is people interacting to flush out hunches. It is a continuous alternation between particulars and explanations, with each cycle giving added form and substance to the other. (p. 133)

In the EDIG, the patterns of data used, developed, or desired but abandoned are critical to understanding the small cues that members embraced to more deeply explore the equity gap in College 1. Sensemaking is triggered when “members confront events, issues, and actions that are somehow surprising or confusing” (Maitlis, 2005, p. 21) and these discrepancies trigger a need for explanation. In looking at data sources as the “small clues” that contributed to sensemaking, I argue that each person in the room incorporated these clues into their larger understanding of the equity gap and this influenced which data sources were selected as important or ignored.
Data Sources Used

For this study, “data used” denotes any data source that was provided by the EDIG members in a meeting as documented in official meeting minutes or my personal observation notes. Although sources may have been brought to the group for sharing, not all data sources were “used” in the sense of actually being reviewed during a physical meeting. In the 19 documented meetings, there were 16 data sources that were provided by the equity-based institutional research analyst for discussion. All of these institutional research (IR) data sources were reviewed in the first nine EDIG meetings that took place, and all but one was focused solely on student-level information. Over time, there was a clear shift in focus from student-level data to faculty data, and in turn, from data housed in the OIE that already existed to data that required instrument development by EDIG members data collection by the UCLA external partners. The ninth EDIG meeting was the last in which student-level data sources were “used” in the meeting as a jumping point for discussion. By the 10th meeting, faculty data sources developed by the EDIG group were the primary focus for all subsequent meetings that ran from mid-July 2018 through May 2019. Approximately half (47%) of the meetings were solely discussion-based and did not “use” physical data sources.

The data sources used in each EDIG meeting (EDIG #2 through EDIG #20) are shown in Table 7, including the data source type (i.e., IR, survey, interview), the focus (student, faculty, or both), the data source, and the key topics addressed by the source. Of note, even though a data source was reviewed in the meeting, it does not mean the discussion that ensued was based on the data provided.
Table 7. Data Sources Used - All EDIG Meetings

<table>
<thead>
<tr>
<th>EDIG Meeting</th>
<th>Data Source Type</th>
<th>Data Source Focus</th>
<th>Data Source Used</th>
<th>Key Topics</th>
</tr>
</thead>
</table>
| EDIG #2      | IR               | Student           | - College 1 Success by Race and GPA  
- College 1 Retention by Race and GPA  
- College 1 Success by Gender and GPA  
- College 1 Retention by Gender and GPA | - Success, College 1  
- Retention, College 1  
- Student Race  
- Student Gender  
- Student GPA |
| EDIG #3      | IR               | Student           | - College 1 Success by Race and Year (2013-2018)  
- English 1A Success by Enrollment in College 1 by Race  
- English 1A Success by Success in College 1 by Race  
- College 1 Success by Faculty and Student Race (Fall 2017) | - Success, College 1  
- Enrollment, College 1  
- English 1A, Success  
- Student Race  
- Faculty |
| EDIG #4      | IR               | Student           | - College 1 Enrollment by Race (Fall 2017)  
- College 1 Success by Race (Fall 2017)  
- College 1 Distribution of D and F Grades by Race | - Enrollment, College 1  
- Success, College 1  
- Student Race  
- D and F Grades |
| EDIG #5      |                  |                   | No Data Sources Used | |
| EDIG #6      |                  |                   | No Data Sources Used | |
| EDIG #7      |                  |                   | No Data Sources Used | |
| EDIG #8      | IR               | Student           | - FAFSA Application Data for College 1 by Race  
- BOG Application Data for College 1 by Race  
- CCEAL Survey Data – Overall College Results | - Self-Reported Income  
- Student Race  
- Institutional Survey Results (Misc.) |
<table>
<thead>
<tr>
<th>EDIG Meeting</th>
<th>Data Source Type</th>
<th>Data Source Focus</th>
<th>Data Source Used</th>
<th>Key Topics</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDIG #9</td>
<td>IR</td>
<td>Student</td>
<td>- College 1 Success Rate by Income by Race - College 1 Retention Rate by Income by Race</td>
<td>- Success, College 1 - Retention, College 1 - Self-Reported Income - Student Race</td>
</tr>
<tr>
<td>EDIG #10</td>
<td>Interview</td>
<td>Faculty</td>
<td>- College 1 Faculty Interview Results (verbal overview)</td>
<td>- Faculty Perspective - Equity - Success, College 1 - Curriculum</td>
</tr>
<tr>
<td>EDIG #11</td>
<td>Interview</td>
<td>Faculty</td>
<td>- College 1 Faculty Interview Results (verbal overview)</td>
<td>- Faculty Perspective - Equity - Success, College 1 - Curriculum</td>
</tr>
<tr>
<td>EDIG #12</td>
<td>Survey</td>
<td>Faculty</td>
<td>- College 1 Faculty Institute Feedback Results</td>
<td>- Faculty Perspective - Equity - Curriculum</td>
</tr>
<tr>
<td>EDIG #13</td>
<td></td>
<td></td>
<td>No Data Sources Used</td>
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<tr>
<td>EDIG #14</td>
<td></td>
<td></td>
<td>No Data Sources Used</td>
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</tr>
<tr>
<td>EDIG #15</td>
<td>Survey</td>
<td>Faculty</td>
<td>- College 1 Faculty Survey on Curriculum Results</td>
<td>- Faculty Perspective - Equity - Curriculum</td>
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<tr>
<td>EDIG #16</td>
<td></td>
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<td>No Data Sources Used</td>
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<tr>
<td>EDIG #17</td>
<td></td>
<td></td>
<td>No Data Sources Used</td>
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<tr>
<td>EDIG #18</td>
<td>Survey</td>
<td>Faculty</td>
<td>- College 1 Faculty Survey on Curriculum Results</td>
<td>- Faculty Perspective - Equity - Curriculum</td>
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<tr>
<td>EDIG #19</td>
<td></td>
<td></td>
<td>No Data Sources Used</td>
<td></td>
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<tr>
<td>EDIG #20</td>
<td></td>
<td></td>
<td>No Data Sources Used</td>
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</tbody>
</table>
The key topics for the data sources used in the EDIG focused on student, faculty, and campus data. Student-level information was reviewed, with the majority of topics centering on race (32%), success in College 1 (32%), enrollment and retention in College 1, and self-reported income (11% each, respectively). Additional demographic variables were included in only one meeting each, with gender, grades, and GPA representing 5% of the topics covered. Sources of data based on faculty perspectives were general (21%), on equity (16%), and about the College 1 curriculum (16%). Figure 4 shows the key topics as percentages of all data sources used in the 19 documented EDIGs.

**Figure 4. Key Topics as a Percentage of Data Sources Used**

![Figure 4. Key Topics as a Percentage of Data Sources Used](image-url)
Data Sources Mentioned

As noted previously, nine of the EDIG meetings did not rely on using a data source, but there were a variety of data sources mentioned as being of interest to the group to review in future meetings. In certain cases, these data sources were desired but required cleaning and further analysis by OIE or the EDIG members, others already existed in some form, and an even larger number required development of instruments and data collection efforts to be undertaken by Guided Pathways program staff or the external UCLA partners. The decisions made regarding which data to pursue further and which to ignore is directly related to the sensemaking that occurred in this study. Weick (1995) warns one to

be careful not to equate action with a simple response to stimulus, or with observable behavior, or with goal attainment…The act that never gets done, gets done too late, gets dropped too soon, or for which the time never seems right is seldom a senseless at. More often, it’s meaning seems all too clear. (p. 37)

Overall, there were 37 unique data sources mentioned in the EDIG meetings that were documented via official meeting minutes or my personal notes. These sources included 21 dedicated to student-level data, 12 concerning faculty, and four miscellaneous sources related to external research or review of the curriculum. All data sources mentioned in each EDIG meeting are shown in Table 8, including the data source type (i.e., IR, survey, interview), the focus (student, faculty), the status of the data source (i.e., existing, desired, or desired, developed, and used), and the key topics addressed by the source. For all data sources mentioned, I analyzed which sources had been discussed as desired and then subsequently developed and used by the group (Note: These data sources are also reflected in the Data Sources Used section), any that existed in some format but had not been shared, as well as data sources that were desired but abandoned.
<table>
<thead>
<tr>
<th>EDIG Meeting</th>
<th>Data Source Type</th>
<th>Data Source Focus</th>
<th>Data Source Status</th>
<th>Data Source Mentioned</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDIG #2</td>
<td>Focus Group</td>
<td>Student</td>
<td>Existing</td>
<td>College 1 Student Focus Group Results</td>
</tr>
<tr>
<td></td>
<td>IR</td>
<td>Student</td>
<td>Desired, Developed, Used</td>
<td>College 1 and English 1A Success and Retention</td>
</tr>
<tr>
<td></td>
<td>Focus Group</td>
<td>Faculty</td>
<td>Existing</td>
<td>Faculty Focus Group Results</td>
</tr>
<tr>
<td></td>
<td>IR</td>
<td>Faculty</td>
<td>Existing</td>
<td>Equity Dashboard</td>
</tr>
<tr>
<td>EDIG #3</td>
<td>Interviews</td>
<td>Student</td>
<td>Desired</td>
<td>Experiences of Unsuccessful College 1 Students</td>
</tr>
<tr>
<td></td>
<td>Observation</td>
<td>Student</td>
<td>Desired</td>
<td>College 1 Classrooms</td>
</tr>
<tr>
<td></td>
<td>IR</td>
<td>Faculty</td>
<td>Existing</td>
<td>College 1 Faculty Race, Student Success by Race, College 1 Faculty Race, Student Retention by Race</td>
</tr>
<tr>
<td></td>
<td>Interviews</td>
<td>Faculty</td>
<td>Desired</td>
<td>Interviews Re: Pedagogy</td>
</tr>
<tr>
<td></td>
<td>IR</td>
<td>Faculty</td>
<td>Desired</td>
<td>College 1 Faculty Grading Patterns</td>
</tr>
<tr>
<td>EDIG #4</td>
<td>Interviews</td>
<td>Student</td>
<td>Desired</td>
<td>College 1 Students</td>
</tr>
<tr>
<td></td>
<td>Interviews</td>
<td>Faculty</td>
<td>Desired, Developed, Used</td>
<td>College 1 Faculty w/ Low Latino Success Rates Compared to Own Course Success Rates</td>
</tr>
<tr>
<td>EDIG #5</td>
<td>Interviews</td>
<td>Student</td>
<td>Desired</td>
<td>College 1 Students</td>
</tr>
<tr>
<td></td>
<td>Interviews</td>
<td>Faculty</td>
<td>Desired, Developed, Used</td>
<td>College 1 Faculty w/ Low Latino Success Rates Compared to Own Course Success Rates</td>
</tr>
<tr>
<td>EDIG #6</td>
<td>Focus Group</td>
<td>Faculty</td>
<td>Desired</td>
<td>College 1 Faculty (Former Success Coaches) w/ High Equity Gaps</td>
</tr>
<tr>
<td>EDIG #7</td>
<td>IR</td>
<td>Student</td>
<td>Existing</td>
<td>Campus Survey Data Re: Food and Housing Insecurity</td>
</tr>
</tbody>
</table>
Table 8. Data Sources Mentioned – All EDIGS (continued)

<table>
<thead>
<tr>
<th>EDIG Meeting</th>
<th>Data Source Type</th>
<th>Data Source Focus</th>
<th>Data Source Status</th>
<th>Data Source Mentioned</th>
</tr>
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<tr>
<td>EDIG #7</td>
<td>IR</td>
<td>Student</td>
<td>Desired</td>
<td>- Success Rates - College 1/English 1A Concurrent Enrollment Vs. College 1 Completed Then Enrolled English 1A College 1 And 1A/110 As Co-Requisites Vs. Not (Fall 2018) - Income Data for Unsuccessful College 1 Students</td>
</tr>
<tr>
<td></td>
<td>IR</td>
<td>Student</td>
<td>Desired, Developed, Used</td>
<td>- FAFSA Application Data for College 1 - BOG Application Data for College 1</td>
</tr>
<tr>
<td></td>
<td>IR</td>
<td>Faculty</td>
<td>Existing</td>
<td>- Equity Dashboard</td>
</tr>
<tr>
<td>EDIG #8</td>
<td>IR</td>
<td>Student</td>
<td>Existing</td>
<td>- Campus Climate Survey Data</td>
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<tr>
<td></td>
<td>IR</td>
<td>Student</td>
<td>Desired</td>
<td>- CCEAL Survey Data by Course Number</td>
</tr>
<tr>
<td></td>
<td>IR</td>
<td>Student</td>
<td>Desired, Developed, Used</td>
<td>- College 1 Income Data by Race and Success</td>
</tr>
<tr>
<td>EDIG #9</td>
<td>IR</td>
<td>Student</td>
<td>Desired</td>
<td>- Student FAFSA Completion Rates - Income Data by Race and Success For Other Courses (Eng1A, Math, Etc.)</td>
</tr>
<tr>
<td></td>
<td>Interviews</td>
<td>Student</td>
<td>Desired</td>
<td>- College 1 Students</td>
</tr>
<tr>
<td></td>
<td>Focus Group</td>
<td>Student</td>
<td>Existing</td>
<td>- College 1 Student Focus Group Results</td>
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<td>IR</td>
<td>Faculty</td>
<td>Existing</td>
<td>- Success Rates by College 1 Faculty</td>
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<tr>
<td>EDIG #10</td>
<td>No Data Sources Mentioned</td>
<td>No Data Sources Mentioned</td>
<td>No Data Sources Mentioned</td>
<td>No Data Sources Mentioned</td>
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<td>EDIG #11</td>
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<td>No Data Sources Mentioned</td>
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<td>No Data Sources Mentioned</td>
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<tr>
<td>EDIG #12</td>
<td>Survey</td>
<td>Faculty</td>
<td>Desired, Developed, Used</td>
<td>- College 1 Faculty Institute Feedback</td>
</tr>
<tr>
<td>EDIG #13</td>
<td>No Data Sources Mentioned</td>
<td>No Data Sources Mentioned</td>
<td>No Data Sources Mentioned</td>
<td>No Data Sources Mentioned</td>
</tr>
<tr>
<td>EDIG #14</td>
<td>IR</td>
<td>Student</td>
<td>Desired</td>
<td>- College 1 Success Rates (Fall 2018)</td>
</tr>
<tr>
<td>EDIG #15</td>
<td>No Data Sources Mentioned</td>
<td>No Data Sources Mentioned</td>
<td>No Data Sources Mentioned</td>
<td>No Data Sources Mentioned</td>
</tr>
</tbody>
</table>
Table 8. Data Sources Mentioned – All EDIGS (continued)

<table>
<thead>
<tr>
<th>EDIG Meeting</th>
<th>Data Source Type</th>
<th>Data Source Focus</th>
<th>Data Source Status</th>
<th>Data Source Mentioned</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDIG #16</td>
<td>Survey</td>
<td>Student</td>
<td>Existing</td>
<td>College 1 First Year Completers</td>
</tr>
<tr>
<td></td>
<td>Observation</td>
<td>Student</td>
<td>Desired</td>
<td>College 1 Classrooms</td>
</tr>
<tr>
<td></td>
<td>IR</td>
<td>Faculty</td>
<td>Desired</td>
<td>PCC Connect Data for College 1 Faculty</td>
</tr>
<tr>
<td>EDIG #17</td>
<td>Survey</td>
<td>Student</td>
<td>Existing</td>
<td>College 1 Student Course Evaluations</td>
</tr>
<tr>
<td></td>
<td>Survey</td>
<td>Student</td>
<td>Desired</td>
<td>College 1 Students re: Sense of Community</td>
</tr>
<tr>
<td></td>
<td>Survey</td>
<td>Faculty</td>
<td>Existing</td>
<td>College 1 Faculty Experience Reflections</td>
</tr>
<tr>
<td></td>
<td>Survey</td>
<td>Faculty</td>
<td>Desired, Developed, Used</td>
<td>College 1 Faculty Survey on College 1 Curriculum</td>
</tr>
<tr>
<td>EDIG #18</td>
<td>Survey</td>
<td>Student</td>
<td>Existing</td>
<td>College 1 Student Course Evaluations</td>
</tr>
<tr>
<td>EDIG #19</td>
<td></td>
<td>No Data Sources Mentioned</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EDIG #20</td>
<td>IR</td>
<td>Student</td>
<td>Desired</td>
<td>College 1 Students Drop from Full-Time to Part-Time</td>
</tr>
</tbody>
</table>

Data Sources Desired, Developed and Used

For student-level data, four desired data sources were actually developed, analyzed, and brought to the group for use in subsequent meetings. These four sources were all IR data handled by the equity-based institutional analyst, therefore they all occurred before she left the College in September 2018. These data sources included: (1) a comparative analysis between success and retention rates in College 1 versus English 1A; (2) a look at self-reported income on the FAFSA application by race of College 1 students; (3) a similar analysis using BOG Fee Waiver application data; and (4) a final analysis combining all income data sources for College 1 students by race and success rates.
Of the 12 desired faculty data sources, three qualitative sources were eventually developed with the UCLA external partners who collected data and shared results with the group. These new data sources were the College 1 Faculty Institute Feedback Survey, the College 1 Faculty Survey on College 1 Curriculum, and interviews with faculty with large or small equity gaps. In total, seven data sources mentioned in 19 documented meetings or my personal notes were discussed as being desired and then being developed or analyzed by IR or UCLA to be used in a future meeting. Table 9 shows these data sources desired, developed, and used for both students and faculty.

Table 9. Data Sources Desired, Developed, and Used

<table>
<thead>
<tr>
<th>Data Source Type</th>
<th>Data Source Focus</th>
<th>Data Source Status</th>
<th>Data Source Mentioned</th>
</tr>
</thead>
<tbody>
<tr>
<td>IR</td>
<td>Student</td>
<td>Desired, Developed, Used</td>
<td>- College 1 and English 1A Success and Retention</td>
</tr>
<tr>
<td>IR</td>
<td>Student</td>
<td>Desired, Developed, Used</td>
<td>- FAFSA Application Data for College 1</td>
</tr>
<tr>
<td>IR</td>
<td>Student</td>
<td>Desired, Developed, Used</td>
<td>- BOG Application Data for College 1</td>
</tr>
<tr>
<td>IR</td>
<td>Student</td>
<td>Desired, Developed, Used</td>
<td>- College 1 Income Data by Race and Success</td>
</tr>
<tr>
<td>Interviews</td>
<td>Faculty</td>
<td>Desired, Developed, Used</td>
<td>- College 1 Faculty w/ Low Latino Success Rates Compared to Own Course Success Rates</td>
</tr>
<tr>
<td>Survey</td>
<td>Faculty</td>
<td>Desired, Developed, Used</td>
<td>- College 1 Faculty Institute Feedback</td>
</tr>
<tr>
<td>Survey</td>
<td>Faculty</td>
<td>Desired, Developed, Used</td>
<td>- College 1 Faculty Survey on College 1 Curriculum</td>
</tr>
</tbody>
</table>
Existing Data Sources Never Used

Five student data sources mentioned during EDIG meetings as existing in some format were never brought to the group for discussion. These resources were College 1 student focus group results, survey data from College 1 first-year completers, College 1 course evaluations, and results from two campus-wide surveys with items specific to campus climate and barriers such as housing or food insecurity. The desire to review both the student focus group results and their course evaluation surveys were each mentioned on two separate occasions but not provided. For faculty, six sources existed that were not shared, including two qualitative resources and four IR data sources. The qualitative data included College 1 faculty focus group results and College 1 faculty experience reflections, and the four IR data sources that were available in some form but not provided were: (1) the Campus Equity Dashboard (suggested two times); (2) an analysis of College 1 student success rates by race taking the race of the College 1 faculty who taught them into consideration; (3) the same race analysis but based on College 1 student retention rates; and (4) overall College 1 success rates by all College 1 faculty. Table 10 shows these existing but unshared data sources for both students and faculty.

Table 10. Existing Data Sources Never Used

<table>
<thead>
<tr>
<th>Data Source Type</th>
<th>Data Source Focus</th>
<th>Data Source Status</th>
<th>Data Source Mentioned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focus Group</td>
<td>Student</td>
<td>Existing</td>
<td>- College 1 Student Focus Group Results*</td>
</tr>
<tr>
<td>IR</td>
<td>Student</td>
<td>Existing</td>
<td>- Campus Climate Survey Data</td>
</tr>
<tr>
<td>IR</td>
<td>Student</td>
<td>Existing</td>
<td>- Campus Survey Data Re: Food and Housing Insecurity</td>
</tr>
<tr>
<td>Survey</td>
<td>Student</td>
<td>Existing</td>
<td>- College 1 First Year Completers</td>
</tr>
<tr>
<td>Survey</td>
<td>Student</td>
<td>Existing</td>
<td>- College 1 Student Course Evaluations*</td>
</tr>
</tbody>
</table>
Table 10. Existing Data Sources Never Used (continued)

<table>
<thead>
<tr>
<th>Data Source Type</th>
<th>Data Source Focus</th>
<th>Data Source Status</th>
<th>Data Source Mentioned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focus Group</td>
<td>Faculty</td>
<td>Existing</td>
<td>- Faculty Focus Group Results</td>
</tr>
<tr>
<td>IR</td>
<td>Faculty</td>
<td>Existing</td>
<td>- College 1 Faculty Race, Student Retention by Race</td>
</tr>
<tr>
<td>IR</td>
<td>Faculty</td>
<td>Existing</td>
<td>- College 1 Faculty Race, Student Success by Race</td>
</tr>
<tr>
<td>IR</td>
<td>Faculty</td>
<td>Existing</td>
<td>- Equity Dashboard*</td>
</tr>
<tr>
<td>IR</td>
<td>Faculty</td>
<td>Existing</td>
<td>- Success Rates by College 1 Faculty</td>
</tr>
<tr>
<td>Survey</td>
<td>Faculty</td>
<td>Existing</td>
<td>- College 1 Faculty Experience Reflections</td>
</tr>
</tbody>
</table>

*Note. Mentioned two times

Data Sources Desired but Abandoned

In the EDIG meetings, conversations led to questions, which, in turn, led to suggestions for data sources that may be worth investigation. All these desired data sources were documented, but 16 were abandoned and not pursued in subsequent meetings. Approximately 63% of the desired but abandoned data ideas were IR-related, and the remainder required qualitative data collection that did not take place during this study. Two student data sources were mentioned at multiple meetings but abandoned, including interviews with College 1 students, mentioned three times, and College 1 classroom observations, mentioned twice. Table 11 shows all desired but abandoned data sources.
<table>
<thead>
<tr>
<th>Data Source Type</th>
<th>Data Source Focus</th>
<th>Data Source Status</th>
<th>Data Source Mentioned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interviews</td>
<td>Student</td>
<td>Desired but Abandoned</td>
<td>College 1 Students**</td>
</tr>
<tr>
<td>Interviews</td>
<td>Student</td>
<td>Desired but Abandoned</td>
<td>Unsuccessful College 1 Students - Experiences</td>
</tr>
<tr>
<td>IR</td>
<td>Student</td>
<td>Desired but Abandoned</td>
<td>CCEAL Survey Data by Course Number</td>
</tr>
<tr>
<td>IR</td>
<td>Student</td>
<td>Desired but Abandoned</td>
<td>Success Rates - College 1/English 1A Concurrent Enrollment Vs. College 1 Completed Then Enrolled English 1A</td>
</tr>
<tr>
<td>IR</td>
<td>Student</td>
<td>Desired but Abandoned</td>
<td>Success Rates - College 1 And 1A/110 As Co-Requisites Vs. Not as Co-Requisites (Fall 2018)</td>
</tr>
<tr>
<td>IR</td>
<td>Student</td>
<td>Desired but Abandoned</td>
<td>Unsuccessful College 1 Students – Income Data</td>
</tr>
<tr>
<td>IR</td>
<td>Student</td>
<td>Desired but Abandoned</td>
<td>College 1 Students Drop from Full-Time to Part-Time</td>
</tr>
<tr>
<td>IR</td>
<td>Student</td>
<td>Desired but Abandoned</td>
<td>College 1 Success Rates (Fall 2018)</td>
</tr>
<tr>
<td>IR</td>
<td>Student</td>
<td>Desired but Abandoned</td>
<td>College 1 Student FAFSA Completion Rates</td>
</tr>
<tr>
<td>IR</td>
<td>Student</td>
<td>Desired but Abandoned</td>
<td>College 1 Student Income Data by Race and Success for Other Courses (Eng1A, Math, Etc.)</td>
</tr>
<tr>
<td>Observation</td>
<td>Student</td>
<td>Desired but Abandoned</td>
<td>College 1 Classrooms*</td>
</tr>
<tr>
<td>Survey</td>
<td>Student</td>
<td>Desired but Abandoned</td>
<td>College 1 Students Re: Sense of Community</td>
</tr>
<tr>
<td>Focus Group</td>
<td>Faculty</td>
<td>Desired but Abandoned</td>
<td>College 1 Faculty (Former Success Coaches) w/ High Equity Gaps</td>
</tr>
<tr>
<td>Interviews</td>
<td>Faculty</td>
<td>Desired but Abandoned</td>
<td>College 1 Faculty Interviews Re: Pedagogy</td>
</tr>
<tr>
<td>IR</td>
<td>Faculty</td>
<td>Desired but Abandoned</td>
<td>College 1 Faculty Grading Patterns</td>
</tr>
<tr>
<td>IR</td>
<td>Faculty</td>
<td>Desired but Abandoned</td>
<td>College 1 Faculty - PCC Connect Data</td>
</tr>
</tbody>
</table>

*Note. Mentioned two times
**Note. Mentioned three times
Used Sources vs. Mentioned Sources

Thinking of the various data sources as “small clues,” I was curious how those that were actually used in the 19 meetings related to the mentioned sources, specifically with consideration to whether the data was student or faculty focused. In addition, knowing that membership matters and that EDIG members felt that whomever “was in the room at the time also influenced the direction we took,” I was interested in determining if there were any patterns associated with the members in attendance, the discussions that ensued to connect cues, and how these conversations resulted in enactment of data being used to address the equity gap in student achievement.

As stated previously, the focus of data sources used in the EDIG meetings shifted from students to faculty over time, with a significant use of IR-based student data in the first nine meetings followed by a move to using qualitative faculty-focused data sources. In comparison, the patterns associated with mentioned data sources show that across the majority of meetings both student and faculty data sources were consistently suggested for inclusion in the discussions. In some cases, the suggested data sources mirrored one another, for example, a desired data source for interviews with College 1 students and interviews with College 1 faculty, but this was not always what occurred. Nine of the meetings did not use a data source, however, this is to be expected due to the limited resources, time, and capacity of group members to generate data between meetings. Specifically, with one OIE research analyst assigned to the group who also worked for the College in other capacities, the expectation to produce analyzed IR data every two weeks was high. Figure 5 shows the number of data sources used in all documented EDIG meetings, whether student or faculty, compared to the number of sources mentioned over time. Figure 6 breaks out the data sources by those which were used, those developed and subsequently used by the group, sources that were existing but never used, and data mentioned but abandoned and never brought back for
discussion. As shown in Figure 6, the majority of data sources used or developed and used were IR data, followed by the development of qualitative data from faculty interviews and surveys.

Interestingly, the IR data sources used were typically only reviewed or discussed once and did not get used a second time within meetings to triangulate information or reinforce findings to drive deeper inquiry. The only exception were results from the College 1 Faculty Interviews, where the UCLA external partners provided updates based on findings from interviews as they were occurring. EDIG #10 focused on results from five participants, EDIG #11 included results from an additional five faculty, and finally EDIG #12 was a review of results from all interviews completed. In some instances, IR data sources were brought to meetings and not discussed at all, such as the Fall 2017 College 1 Enrollment and Success by Race data from EDIG #4.
Figure 5. Data Sources Used and Data Sources Mentioned - By Student and Faculty Focus
Figure 6. Data Sources by Focus Over Time
Enactment of the Environment

Data itself is not neutral or objective, nor does it have any “value or meaning in isolation” (Borgman, 2015, p. 4). It is inherently constructed via social and political mechanisms and is made up of unexamined assumptions, values, and biases tied to the structures in which the data are produced, and the technologies developed to analyze them (Johnson, 2017a; Johnson, 2017b; Eubanks, 2018). EDIG members took notes of cues from the data sources discussed in meetings, made individual and collective meaning of the data, and then acted on the interpretations. Decisions made using the data produced in the EDIG were based on what data held value for members and the power of individuals in the group to act on the data.

Action as Motivator

“Action is crucial for sensemaking” (Weick, 1995, p. 32) and creates an environment in which learning occurs on multiple levels. For the EDIG, the equity gap in student achievement for College 1 students provided the base from which the inquiry process started, but the actions taken within the group about the data sources used, mentioned, desired and developed for use, or abandoned are directly tied to the individuals and the environment in which they work. According to one member, this motivation to act is embedded deeply within the College, saying, “One of our biggest complaints [at the College] is that we don’t move fast enough” and that “people came into this [EDIG] thinking this cannot just be inquiry, inquiry has to lead to action.” Multiple members focused on their own identities as being “action-oriented” and this quality influenced every decision that was made in the group, noting when they were reviewing data in the group they were actively “looking for things to tease out…and take action on immediately.”
In selecting College 1 as the focus of inquiry, the members chose an area in which they had control and where changes could be actively implemented. The core group of members who regularly attended the meetings were in direct charge of the Guided Pathways program, the College 1 curriculum, and hiring and selection of adjunct faculty to teach the course. By “having someone in the room who can actually do something about it [College 1]” the group was grounded in action from the start and the pattern of data sources used reflect this overwhelming desire to act on information almost immediately.

The equity gap in College 1 reflects a disparity in success and retention at the student level, but by the fourth EDIG meeting, a shift occurred from use of IR student-level data to a focus on faculty data. Meeting minutes reflect this shift by connecting the gap to faculty-based areas under the control of group members, such as the College 1 curriculum or professional development: “Why are we seeing an equity gap in College 1? Is it the curriculum, pedagogy, or instruction?” Subsequent meetings relied only on data sources associated with faculty and ways to engage in incorporating equity and race into professional development offerings and redevelopment of the College 1 curriculum. Based on the roles and responsibilities of each person in the room, “the course of action depends on who is presenting the information, who asks the questions, and then who does something with it.” With action as the motivation driving the EDIG, the data sources not only shifted from students to faculty, but from IR data to evaluation and qualitative data. Weick (1995) suggests “people see and find sensible things they can do something about” and that the ability to act affects “what is to be believed and what is rejected” (p. 60). By moving from IR data to the development of interview protocols and survey instruments used in data collection, the EDIG members acted by taking control of the questions being asked of faculty, who was included as a participant, and then determining ways to justify changes to College 1 based on the resulting data.
**Action at the Expense of Inquiry**

The motivation to act affected the inquiry process and resulted in data being skimmed in review, not being reviewed at all when provided, and desired data sources being abandoned and never pursued. This overwhelming desire to affect immediate change resulted in the shift from student to faculty data and from IR to evaluation data, as those were easier to control and elicit the types of information desired to support action. As a result, six existing IR data sources were never included for review and ten IR sources that were mentioned were never analyzed and brought to the group.

The progression to evaluation data focused on faculty was a justifiable move on the part of EDIG members as it promoted action that was based in inquiry. The process of determining questions to ask faculty about College 1 students, equity, and the curriculum was an action. Being participants in the development of instruments with the UCLA external partners was an action. And using these results, however preliminary, to make decisions on ways to modify the College 1 curriculum and Faculty Institute was an action. By focusing on action, the EDIG members were able to receive answers to their direct questions and then create plans to address them. Some group members felt this was a natural shift that “happened out of necessity” because of the limitations of IR data. One UCLA external partner had a different perspective, noting the emphasis on action was at the expense of fully synthesizing, understanding, and using data like the group had originally intended:

*I feel like a lot of work went into surveys and focus groups just for a 10-minute presentation. It seems like a lot of work and a lot of knowledge, but little sharing. I feel like we just skim the surface on a lot of things.*

*Blow it out, take time to really enjoy the data.*
Personal Experiences Impact Action

EDIG members used the meetings to talk about how different data might align with actions to be taken. The ways they approached the information varied based on their identities and retrospective experiences that informed their acceptance of plausible explanations for the discrepancy in achievement of College 1 students. All individuals place higher value on evidence that supports what they already believe rather than what they find unbelievable (Weick, 1995). People use their own feelings, past experiences, and knowledge about a situation to weigh the importance of certain data points over others, while seeking support for their own interpretations of an event. This focus on specific elements while completely ignoring others resulted in data sources being abandoned even when mentioned as relevant for inclusion. The requirement for validation is tied not only to the member and their role at the institution, but also to firmly held personal beliefs they are doing everything to help students succeed. One member noted “all these emotions that are attached to one-on-one experiences” that faculty have with a “handful of students” determine their perceptions of what is taking place on a larger scale. This generalized understanding of the student experience based on their own experiences as faculty and administrators at the College results in the desire for plausible explanations, not necessarily accurate ones. In sensemaking, accuracy is secondary to plausibility because the “desire for speed is more pressing” (Weick, 1995, p. 57-58). That need for plausible answers and quick action affected which data sources were valued based on personal experiences of the members.

One example of personal experiences outweighing the evidence provided centered on perceived barriers of College 1 students. Numerous conversations took place in meetings about barriers such as limited finances, responsibilities at home, and the need to work. It was noted in meeting minutes that members felt “students are unsuccessful because they are busy with external
responsibilities (work, family)’” and one faculty noted some of her students drop courses due to “severe financial and home responsibilities.” One member shared a personal experience he had with a student “many, many years ago” where the student told him he was missing classes because he could not afford the bus fare to get to school. The member relayed he gave the student $5 from his own pocket to help this student in need. He acknowledged this story was from a long time ago, but he “knew” transportation was still an issue for students and he felt the College was not responsive to the barrier he identified. One person noted the reduced fare bus pass program at the College was possibly stopped because of underutilization by students. Discussion ensued with questions including, “Do we actually know how students get to campus? Alone? In groups? Can we find out how many bus passes were bought by the College in the last year and how many students actually purchased them?” In the meeting, the equity-based institutional analyst responded by pointing out that data existed from a campus-wide survey conducted the previous year saying most students do not take the bus, but in fact, drive and park on campus. The storyteller reacted saying that cannot possibly be true and suggested the group continue to dive into the transportation issue.

In addition to my own notes taken while witnessing this event, this story was mentioned by the analyst in her interview when asked about how data sources were utilized or abandoned by the group. As an individual familiar with the members of the group personally and professionally, she understands why a personal experience will outweigh accurate data presented to the contrary:

When I hear him talk about this student needing a bus pass, I think about how incredibly validating that was for him personally, how good he must have felt helping this student. He has all these human feelings attached to that experience, so when I say, “Hey, actually about 80% of our students drive to school,” that’s like, unbelievable. In some weird way, it’s like a direct challenge to that experience.
She takes it further noting how a single experience can be generalized to all students and still hold more value because it is a human interaction, a story to be shared in which the storyteller is having an impact, even when that person is known to “value” data:

But when you say, “Ok, let’s say you helped at least two students every semester obtain a bus pass out of ALL the students possible on campus,” it’s just so jarring. You see it everywhere. And these are folks that are data informed, or at least seek it, who value it, and they still have these reactions. I can imagine the people who aren’t at all to that level.

Individuals construct their understandings of events by shaping or omitting information to bolster their self-esteem and feelings of control, meaning explanations that may point out the contrary or intimate failure on the part of the person are often ignored to ensure their positive sense of self is retained (Brown & Jones, 1998). In sensemaking, we rely on our past experiences to interpret what we see occurring currently, using our retrospective lens to compare it to similar events from the past to make sense and understand why it is happening. In the example of the group member providing money to a student, he relied on a past experience to make sense of why a student is not attending courses and uses his story to show to others that he had positive impact. Even though data may contradict what he experienced in this single instance, the ways he made sense of this experience and embraced it as part of his own identity underscore how we value evidence more if supports what we believe rather than what is true and supported by data.

**Actions Taken with Data**

Faculty data sources developed within the EDIG were used to make decisions and take action to change aspects of the College 1 curriculum and College 1 Faculty Institute going forward. Using cues extracted from interviews with faculty and findings from a survey with Faculty Institute
attendants, the Guided Pathways Faculty Lead (and College 1 curriculum developer) used the data and developed a new course structure outside of the EDIG to be piloted in fall 2019. The student income data was utilized by both the Director of Student Equity and Director of Professional Development in other contexts and presented to other administrators for purposes outside the EDIG. There were no other reported applications of the data sources used or developed by the group.
SECTION 5: DIG Lessons Learned

The data-focused inquiry groups at the College started as an experiment and as with any experiment there were considerable lessons learned that can be applied in future iterations of this work. Members of the Guided Pathways community of practice provided concrete feedback on the strengths and limitations of the experiences they shared.

DIG Strengths

As faculty, administrators, and staff at the College, EDIG members often work together at the program level, attend the same professional development trainings, and engage in campus-wide initiatives at the institution. The EDIG provided a new avenue by which these individuals could come together as a community of practice focused on the Guided Pathways program, and specifically the equity gap in achievement in College 1. Two members expressed their positive takeaways: “As practitioners, just having intentional carved out space and committed time to do this was super important,” and the consistency of meeting created a “rhythm, and that rhythm was really important for providing momentum and as a result I think we accomplished some things, we've found out some stuff. I think that's a positive.”

In this work, members noted that having multiple perspectives focused on a single topic was critical to the continued momentum and viability of the EDIG. Members believed that having practitioners in the room with varied experiences, different levels of understanding and involvement in Guided Pathways, and unique points of view based on their own identities was a key strength that is not often found in other groups focused on practice. By including individuals with different points of view and experiences, the group benefited overall by having “a lot of interesting minds coming together that are trying to solve one problem.” The unique identities of each person in the room,
including those with extensive history at the College and those new to the College, created a dynamic group where learning took place both implicitly and explicitly. Including members who had intimate knowledge and experience with the development and implementation of the College 1 curriculum helped ground the conversations and provide context that was key to reviewing data sources and how they might be used to understand and close the equity gap. Not only did members learn from one another, but a greater sense of empathy was developed amongst members. One interviewee commented, “Anytime we have space and time to focus on something, but also to share our own experiences it is almost inevitable we are going to build a deeper level of understanding with one another.”

This “deeper understanding” was greatly facilitated by UCLA as a key partner in this work. UCLA members served as sounding boards, conversation facilitators, and inquiry generators who assisted the group by breaking down boundaries that may exist between College representatives. As a neutral entity within the group, UCLA researchers represented a base from which conversations could start and end, with no personal feelings involved. In addition to providing an outside perspective, UCLA members also have their own unique identities, areas of expertise, sets of knowledge and experience that interact with those in the room. UCLA researchers in the room provided an evaluation perspective and a background in research methodology that aided the group in asking different questions and determining ways to collect data for answers. One member mentioned this benefit, where including UCLA is like “having outsiders who ask questions for both groups.” With a key focus on data to drive conversation in the EDIG, UCLA researchers were able to help College members interpret data, suggest alternative ways to view information, and think broadly about other data required to triangulate what they found. In this respect, the learning was reciprocal, with College representatives and UCLA researchers learning from one another.
EDIG members also mentioned that having OIE representatives as partners greatly enhanced the quality of the experience and the ability to engage with data. Institutional research analysts served as a resource and a window into what exists already, where it is housed, and if it is accessible. According to one member, having institutional research analysts at the table enabled us really timely, almost immediate access to real-time data, and real-time and immediate access to someone who could cut up and present the data and slice it in the way that we wanted it to be sliced in relation to the specific question that we were grappling with in any given moment. I think that was a benefit.

Having representatives focused on student equity, faculty professional development, and the Guided Pathways program allowed for communication across departments that previously did not exist in the same way. This aligns with the community of practice theory in which members may participate in multiple communities that reflect different boundaries separating them from one another, but by crossing the boundaries and engaging in the EDIG, members engaged in brokering and transferred what they learned from their participation in varied groups to this one. Through this group, knowledge was gained via the information and questions generated from the data developed or presented within the group that could be translated to other contexts. For example, two EDIG meetings were dedicated to reviewing retention and success rates of College 1 students in relation to self-reported income on the Free Application for Federal Student Aid (FAFSA) or Bog Fee Waiver applications. Although this data was not pursued further in subsequent meetings, the data was utilized by both the Director of Student Equity and the Director of Professional Development in other initiatives related to their own work.

Some EDIG members found the flexibility of the group to be a significant strength. Members felt that keeping the group “open so that anyone can come at any time” and allowing the
“schedule to move more gracefully with the reality of the work that we’re doing” was key to it being successfully maintained over time.

**DIG Limitations**

The data inquiry group was described as “free-flowing,” “organic,” and “flexible.” Although these adjectives were used to denote strengths as well, all EDIG members found the lack of structure to be a significant limitation. The goals and objectives were not fully defined, and members struggled to work within the loose parameters of the group.

I don’t know what the intended structure was. I think what I have heard in participating in the group is that there’s a more organic intention with this work, so it could be a personal kind of need, but to kind of feel like that there’s a clear objective, that we all collectively, we’ve taken time to collectively unpack what that objective is, what it’s about, how we feel about it, and then beginning our work, and grounding our work in this objective that we have collectively grappled with and come to understand first.

Another member echoed this sentiment, stating:

There was no goal setting, none of that happened. I also don’t think it was meeting just to have meetings.

But, if it was on a continuum, I would say it was probably a little closer to meeting just to have meetings.

In higher education contexts, working groups of practitioners often establish norms by which to interact and operate with one another. Developing how a team makes decisions, assigns work and holds members accountable can create more effective communication and shape how success is defined and achieved. By setting these rules or guidelines, team members can be comfortable in their roles and the relationships that exist in a group setting. According to EDIG members, norms were not established, and some felt this affected the ways members interacted with one another. The literature on collaborative inquiry note that this process requires “collaboration,
the ethics of care, risk-taking, multiple ways of knowing, open dialogue, and the lived experiences of those who engage in the methodology” (Black, 2018). Without established norms, these components of collaborative inquiry were skirted and limited the ways in which members worked with one another.

Although conversations were “respectful,” in my own personal observation notes I indicated numerous times how infrequently specific members spoke in the group and how when they did, the comments were quickly subsumed by other discussion. If norms were developed at the outset, comfort levels and willingness to engage may have been higher. One member suggested the benefit of establishing norms not only allows for determining how the work will be done, but also how members can have conversations about that work. He stated,

*I think not having norms about how we’re going to work together, it doesn’t give us something to touch back on, it doesn’t give us the space to ask questions about the ways in which we’re working, and that could be a variety of things.*

Meetings were conducted without agendas and official meeting minutes from previous meetings were never reviewed to continue discussions or re-focus the conversation based on what occurred in the past. The majority of EDIG member were not required to do any focused work between meetings to share with the group, save for the institutional research analyst responsible for pulling data and UCLA external partners collecting data. Collaborative inquiry and the resulting collective learning relies on cycles of inquiry and reflection, which requires members to question their work inside and outside of the group, reflect on the ways the data in the EDIG supports, refutes, or challenges what they think they know, and apply what they are learning to their practice. Without structure, deeper engagement in the inquiry work was not achieved. Members felt “frustrated in the beginning because it was all over the place,” and felt focus was difficult to achieve
without more structure in place. Without clear steps and “a lot of free-flowing and thinking” there was “a lot of ‘wait, so what are we doing again?’ that took place.”

Outside of not having those key foundational pieces laid, members felt there was a clear lack of defined leadership in the group. Some members suggested that “no one really took ownership of the DIG,” and that some individuals “thought they were in charge,” but without vocalizing roles and responsibilities from the outset, the group suffered. One member commented,

> Every group still needs someone, like a leader, right? Someone who can let the agenda and set new plans and review things. We need someone to sort of guide the group. I guess I though [UCLA researchers] would be that but it seemed a little bit too free flowing and a little too informal sometimes.

In my observational notes I noted numerous times where UCLA partners asked College representatives what path they wanted to take, letting them know they “own this group” and therefore get to decide what data to focus on based on their needs. However, even with the nudges to accept ownership, the College members did not fully embrace that role.

Without norms or defined leadership roles, any member with “the loudest voice has the floor and gets to make decisions.” In a small group, observed comfort levels varied and pre-existing relationships, whether as friends, work colleagues, or both, impacted who dominated meetings. The louder voices influenced the discussions as well as the data sources that were selected for review, developed, or abandoned entirely. In some ways, the dominance of some group members in this context reflects the lack of diversity in membership. Although a strength was having multiple perspectives in the EDIG, members expressed needing more and different views to help bolster the group discussions and direction. Not only were more persons of color desired, but also a greater
number who teach College 1 and that engage in program-level work. Even with open membership, the group was restrictive in focus and it remained small.

All limitations outlined above affected the inquiry efforts around data. As outlined in Chapter 4 Section 4, data sources were not fully explored in many situations and desired data sources were often forgotten entirely. When the EDIG discussions led to the development of interview protocols and surveys, the UCLA researchers engaged in extensive data collection efforts over multiple months, however “a lot of work went into the surveys and focus groups just for a 10-minute presentation. It seems like a lot of work and a lot of knowledge, but very little sharing.” In addition, the institutional data sources typically received minimal review and were almost never revisited to confirm or triangulate findings with other sources. Often, the inquiry was limited to a single takeaway per data source and the group moved on to the next.

As a group focused on inquiry, the overriding sentiment I observed was that action held greater value than questioning. Numerous members identified themselves as being “action-oriented” and they were in this group to “get to a place where increased understanding can lead to an actionable course.” When a problem is defined, those who are intimately involved want to create solutions to address the issue and move on to the next pressing concern. One member plainly stated,

*There’s great value in talking, but for practitioner-based work, it’s like how does that lead to action and transformation? And how does that transformation then get evaluated or refined in this kind of innovative group, right?*

Focusing on action rather than exploration and deeper understanding of what drives the equity gap in achievement for College 1 students limited the group from going beyond the data sources that
were readily available or based on a small group (e.g., faculty who attended the College 1 Faculty Institute).

**Suggestions for Improvement**

The EDIG served as the first attempt at developing a model of what faculty, administrators, and staff can do to engage in inquiry work around data and equity in student achievement. In conclusion, key suggestions for ways to improve the data-focused inquiry model include:

1) Enhancing structure, but maintaining flexibility

2) Ensuring diversity of membership to mitigate dominant voices

3) Exhausting data sources

4) Focusing on inquiry to feed action, not just action itself
SECTION 6: Personal Sensemaking

This section is dedicated to my observations and personal sensemaking that took place based on the results presented on membership, identities, and acting on data.

Personal Sensemaking on Membership

This study is as much about my own personal sensemaking as it is an observation of the process by which the EDIG members worked together, extracted cues, and enacted their environment. As a member of the group myself, it is important to reflect on how my own introduction to the group, existing relationships, and self-perceived power as the researcher influenced my analysis of the impact of membership on the group.

My Introduction to EDIG

Studying the data-focused inquiry groups at the College as a dissertation topic was not my original plan, and in fact, the plan changed specifically due to my deeper involvement with the EDIG group and my growing fascination with their interactions. My role in the EDIG was as a participant observer, but just as with the other members, my existing relationships, identity, and self-perceived level of power impacted the ways I made sense of the interactions and actions that took place before my eyes. When I was first developing my dissertation idea, I was focused on looking at data use in a higher education context by examining Big Data and predictive analytics. My advisor had recently begun the EDIG at the College with the Guided Pathways community of practice and felt it would be beneficial for me to attend to hear about the types of data faculty and administrators’ reference, use, or need to do their work. She suggested that working with this group would give me greater insight into how I might approach the Big Data question at the program-level. When I joined
the group, it was with the understanding it was intended to be free-flowing and organic in the ways that information was discussed, but that all meetings were to be grounded in data.

**My Existing Relationships**

In addition to the relationship with my advisor, I was also good friends with the equity-based research analyst who was working at the College and involved in the EDIG. Through her, I had met one of the core EDIG members socially outside of the College setting, so I came into the group with these two personal relationships. I had a professional relationship with the Associate Dean with whom I had previously done some minor work the year prior in developing pieces of a report for Guided Pathways. In addition, as a member of the external UCLA research team, I had working relationships with not only my advisor, but both doctoral students who were notetakers, instrument developers, and data collectors for projects developed within the EDIG context.

**My Power as the Researcher**

As a participant observer in the EDIG, my identity and life experiences affect the ways I react to those around me, how I interpret what they say, and the value I assign to what I observe. Even when triangulating the data derived from my personal observation notes, interviews with core EDIG members and documents and artifacts, my positionality and my self-perceived power as the researcher in this context impacts the analysis and presentation of the results from this study. In qualitative research, the approaches to understanding social behavior stem from “emic” or “etic” perspectives. The emic perspective “attempts to capture participants’ indigenous meanings of real-world events” (Yin, 2010, p. 11) and has a broad scope looking at a defined culture, such as that of the Guided Pathways community of practice at the College. The etic perspective, on the other hand, is associated with an external researcher using “structures and criteria developed outside the culture.
as a framework for studying the culture” (Willis, 2007, p. 100) by using preexisting theories, hypotheses or research constructs as a basis for investigating the culture being studied. As a participant of the social group, both inside and outside the EDIG, I was working from the “insider” perspective of the subject within the culture, but my role as an observer represented an “outsider” looking in who could never fully capture what it means to be within that culture or have the same institutional experiences of those in the room.

Maintaining a balance between perspectives is critical for a researcher as both are always present due to a researcher’s own value system and personal characteristics (Yin, 2010). To that effect, my own identity and existing relationships with members of the group affect how I view the culture in which the group lived. And as an outsider, any personal feelings I have about the value of data, its role in decision making, and how it can be effectively used to impact students will affect the ways in which I listened, took notes, observed what occurred, and analyzed the resulting data.

**My Reflections on Membership**

As a participant observer I participated in 13 EDIG meetings, 11 in-person and two via telephone. From my first meeting, it was clear the members of the Guided Pathways community of practice are a group of smart, professional, caring individuals all with unique identities, personal experiences, and qualifications that impacted what took place in the room. The two dominant personalities noted by EDIG members as having the “loudest voices” in the room both have extroverted tendencies, but in many ways had more at stake in regard to College 1 and the Guided Pathways program than other group participants. As such, the double whammy of personality and personal value created a situation in which these members took more control and ownership of who was in the room, who was not included, and who was allowed the freedom to fully use their voices. Other members with shorter tenure at the College and more introverted personalities were less likely
to speak out, to the point of sometimes being called out explicitly to comment on what was being discussed. These situations were clearly meant to include the less vocal members, however, in the moment it often felt like a direct move to prove everyone was invited to speak freely.

Everyone in the group had a shared commitment to address student equity using these meetings and discussions to develop data-informed actions to close the gap. However, with the loose structure of the EDIG, involvement varied with some members floating in and out or sharing attendance and this affected the sensemaking that took place. Personally, I noted how the structure left me feeling like a “ship lost at sea.” With the two dominant personalities attending almost all meetings and others with outside perspectives attending less frequently, the scheduling, invitations to new potential new members, and the overall direction of the group was driven by the more “powerful” members in the room. Existing relationships and social connections appeared to drive the exclusion of new members, with membership often feeling like it was intentionally kept small and tight around the core group of those who were trusted and less likely to disrupt the chosen path. Although never explicitly stated, potential justification for maintaining the membership at the existing level could have been to avoid needing to “catch up” new members or provide clear reason for the path that was taken. Even with notetakers, the meeting minutes were never fully utilized as a jumping point for subsequent conversation, therefore it was the responsibility of the members attending a meeting to focus the conversation each time rather than rely on documented steps. This meant that memories of members who attended previous meetings were used as the source of information driving discussions. In many ways, the use of memories afforded more power and control to the individuals in the room who attend more frequently and/or have the most dominant voice.
Considering the seven components of sensemaking and those included in critical sensemaking, the membership of EDIG directly ties to the socialized aspects of interaction between administrators and faculty, based both on professional and personal identities. Individuals who were more liked than others, who had personalities that would fit and whose involvement would result in progress were included, all of which is driven by power and control of key members of the group who created it, led it, and determined who else could be a member.

**Personal Sensemaking on Identity**

The professional identities that manifested themselves in the EDIG meetings were aligned with both the institutional roles and personal identities of each individual member present. For example, the Director of Professional Development focused conversations on faculty whom he had more direct control over in his role at the College. Through his lens, the way to address the student equity gap was through the implementation of trainings for faculty to teach them strategies to talk about race and equity in the College 1 classroom. This perspective was enhanced by his background training in urban education policy that informed his personal identity, but being new to his role, he spoke little of his own background or previous experiences and focused more on his prescribed job. The members with longer tenure at the College, and perhaps more political or administrative power, were more likely to infuse their personal identities and beliefs into conversations that took place within the EDIG. The comfort associated with knowing your role and having firmly planted roots at the College and with the Guided Pathways program provided a greater sense of freedom to show aspects of personal identity. In addition, longstanding relationships within the group amongst those with more years at the College meant some individuals were more likely to show their personal identities in the professional setting.
Personal Sensemaking on Acting on Data

The EDIG was a method by which the Guided Pathways community of practice could actively engage in an inquiry process on different data sources related to College 1 students and faculty. The overarching goal was to explore the student equity gap in achievement, ask deeper questions, and use data to make decisions that would help to close the gap. As a participant observer, I noted early on that IR data sources were used infrequently and typically did not provide the basis for discussion. In sensemaking, cues are the “seeds” from which a larger sense of understanding of what is happening in the environment are extracted. The cues based on individual data sources had potential to be linked and expounded upon through inquiry, where questions drove re-analysis of data or different slicing of data to provide new perspectives, however, these connections were not made between data sources. This may have been due to many factors, such as the structure of the group and meetings, the data literacy of members and knowledge of how to think about data, or simply that pre-conceived ideas and personal experiences outweighed the information provided.

The structure of EDIG meetings was formal in that times were scheduled, members invited, and meeting minutes were taken, however, the “free-flowing” nature of the conversations also applied to the format by which meetings were held. Agendas were not used as organizational tools, and official meeting minutes were not utilized to frame subsequent meetings and drive inquiry. One member pointed out how structure related directly to data sources that were used, developed, or desired and abandoned, stating:

So I think that was a consequence of how meetings were structured and how they were run. Had we had a clear agenda and a clear direction and we are going to address various aspects on that direction, then I think it would have been a lot easier on us to provide more meaningful data and more actionable data.
The loose format of the EDIG created a disconnect between data sources, meaning the path chosen by the group and decisions acted upon may have been drastically different if data were approached in a more deliberate manner. The research analyst continued:

*it’s like the conversation is going in so many different ways and with no direction it’s no surprise that if we provide data here and there, or if we provide data it really isn’t going to amount to anything. Because really none of these ideas were fully formed and there was really no action plan for it. It was just like we’re talking, ‘Oh and I wonder about this data…’*

By the fourth EDIG meeting, when the shift from IR student-level data to interest in faculty data occurred, it was not based on exhausting student sources (as shown by the number of mentioned sources being desired did not decrease), but rather on data that could be collected and acted upon. I never questioned that all EDIG members valued data and embraced the idea of making “data-informed” decisions, however I wondered about data literacy and in what ways the EDIG structure may have created a learning environment in which data was discussed both abstractly and concretely to increase understanding about the powers and limitations of different data for students and faculty. The equity-based institutional research analyst responsible for IR data provided summaries of information, but members were not required to review data sources outside of the group, consider questions they had, or think deeply about what they were seeing in the data. A more concerted effort to embrace talking about data may have led to deeper connections with the data and a greater sense of how data might be used to address different aspects of the student equity gap.

Finally, we know membership matters and that identities of individual members influence what takes place in a group meeting, but their personal experiences and ideas about what information has value had potential to supplant data sources provided in this context. As shown by
the member story of giving $5 for bus far to a student in need, a belief persists that transportation is a barrier even if not supported by the data. Similarly, members came into the group asking, “Why are we seeing an equity gap in College 1? Is it the curriculum, pedagogy, or instructors?” which set the direction of the group towards focusing on data specific to curriculum and faculty. With the mission of developing data sources to explore those key components of the Guided Pathways program, pre-conceived ideas about successful faculty (e.g., with lower equity gaps) drove the questions asked in faculty interviews around race and equity discussions in the College 1 classroom. In addition, preconceived ideas about faculty following the curriculum too closely and being “unwilling to stray” from the page resulted in creation of a survey evaluating self-perceived confidence in teaching curriculum modules. The connection between equity and confidence teaching the curriculum was not supported by data, but by the belief of some members in the room that greater confidence in teaching meant more comfort in talking with students about equity issues.
CHAPTER 5

DISCUSSION

Introduction

This study contributes to our understanding of how the individual and collective experiences in a community of practice affect the learning and sensemaking processes in which higher education administrators and faculty engage using data. It provides a perspective on how their personal and professional identities influence the individual and collective interpretation of data, which data are valued or abandoned, and how decisions to act are made. Although not generalizable, this study provides an example of how one community of practice developed, maintained, and made decisions as a group engaging in inquiry around data to address the equity gap in student achievement. There is limited literature that examines the learning and sensemaking processes specific to data in a community college context, and this study provides insights into how implementation of a data-focused inquiry group can result in actions addressing student outcomes within a Guided Pathways program. In addition, it points to the fact that although typically used in K-12 settings, the RPP model can promote inquiry, innovation, and action in higher education institutions as well. Results of this study point to the underdevelopment of the group as a community of practice which in turn affected the learning that occurred, the ways members made sense of information they received, and the data sources which were acted upon. Group members, their identities, and the overwhelming desire to act influenced the ways in which data sources were used, developed, or abandoned in the decision-making process.
Review of the Findings

This community college has a small but successful version of a Guided Pathways program in which their students are found to be more successful than students not in the program. However, the student equity gap in achievement remains, with the Hispanic or Latino/a/x and Black Guided Pathways students performing worse than their White and Asian peers. Eventually the version of the program that currently exists will need to scale up and be applied across the campus to fully adhere to the Guided Pathways model pushed by the Chancellor’s Office, therefore, the equity gap concerns need to be investigated and addressed. By embracing data, using inquiry, and acting on the evidence discovered in the DIGs, this community of practitioners engaged in a social context wherein collective learning, sensemaking, and action took place.

The sensemaking process relies on interrelated properties, however not all are required for sensemaking to occur. Weick’s (1995) seven properties include: identity construction, retrospective, focus on extracted cues, plausibility not accuracy, ongoing, social, and enactive of the environment. Noting limitations to these components, critical sensemaking theorists incorporated power, knowledge, structure, and past relationships as key considerations for sensemaking (Helms Mills, 2003). The process of making meaning out of the EDIG members’ collective experiences was sensemaking, whereby they made meaning out of ambiguous circumstances provided via data sources (Kezar & Eckel, 2002; Weick, 1995). When group members encountered these moments, they sought to clarify what was going on by extracting and interpreting cues from their environment, and then used these cues as basis for a plausible account that provided order and "made sense" of what occurred. Through this perpetual cycle of making sense via cues, they continue to enact the environment in which they work (Maitlis & Christianson, 2014). In this study, I found that
membership, identities, and the desire to act influenced the ways in which data sources were used, developed, or abandoned in the decision-making process.

The EDIG represented a social context in which existing relationships determined who was in the room and who was not in the room. In all cases context matters and determines what is an extracted cue in the first place, how it will be interpreted, and what it will become. The composition of the group affected the worldviews that were brought in, as well as the framing of ideas that resulted from the interaction of its members. The inclusion and exclusion of certain individuals, groups, or institutional roles was determined by two people within the group who had the power and control to make changes to the membership. In some ways, this power and control was rightfully assigned due to their roles within the Guided Pathways program, their tenure at the College, and their ability to act on any information derived from the group, however, the lack of diversity in membership (both racially, ethnically, and institutional roles) resulted in less effective inquiry and exhaustion of data sources. These two members also had the loudest voices in the room, thereby solidifying their power over what occurred and the sensemaking that resulted from their control. Although neither took clear ownership of the group, all members interviewed noted the dominance of the members and the influence they had on the selected data sources and ultimate path of the group towards focusing on College 1 faculty and the curriculum.

The personal and professional identities of each member played a key role in shaping the sensemaking process by which they constructed individual and shared understandings of data sources and their value. The identities of each person in the room contributed to what they said, how they interacted with others, how decisions were made, and what was acted upon. The need to enhance one’s own sense of self impacted what occurred in meetings, with the professional identities of each member surfacing and promoting the shift from students to faculty, an area all had more
control over. This control over which cues served as a point of reference for the group reflected an important sense of power.

The creation of the EDIG was an action taken to use data to better understand what drives the student equity gap in achievement of Guided Pathways students in College 1. Even though the group was intended to engage in inquiry, the true aim was to make decisions and act on provided information. When members encountered moments of uncertainty around data, they engaged in sensemaking by extracting and interpreting cues from the environment that felt more plausible in explaining what was taking place. This manifested itself in members relying more heavily on personal experiences via anecdotal evidence rather than data supplied within the group. For example, members engaged in telling retrospective stories about personal impact based on their understanding of student needs and relying on personal experiences as “data” even when information was provided to the contrary. These deeply held beliefs are rooted in the personal and professional identities of each member and impacted the ways the group collectively made sense of any new information. Due to this some data was outright abandoned by the group even when it was mentioned as being desirable for review. By relying on extracted cues of their own development, the trajectory of the group was affected, and data sources were not fully exhausted in their examination and use.

Finally, the learning and sensemaking that occurred was affected by the structure of the group and the format under which it operated. Without a common and defined goal, the potential impact of these individuals in the room was stifled. In addition, without clearly established norms, the interactions were respectful but perhaps superficial and resulted in taking actions that supported the vision of those with greater perceived power within the group as opposed to those agreed upon collectively. Without goal setting, established norms, or identified roles within the group, members
were uncertain if time was used effectively. However, consistent meeting times and space to work with one another reinforced their commitment to one another as a community of practice and allowed for existing relationships to strengthen and new relationships to form.

**Digging Deeper Into the EDIG**

**An Underdeveloped Community of Practice**

In a community of practice, Wenger (1998) identifies the criteria by which members recognize their membership in a community. The first is that all members have a collective understanding of the purpose and goals of the community, that they know they are engaged in a joint enterprise. For the EDIG, it was clear everyone fully understood their common domain of interest as the students, their own roles as practitioners, and that they all belonged to a larger, institutional community, however, there was less clarity about the purpose of this group. As mentioned by numerous interview participants, the lack of structure and goal identification left them feeling confused. Without defined objectives, the potential for sensemaking and data-informed action was limited in that markers of progress were not identified and therefore successful achievement was uncertain at the individual and collective levels.

The second criteria is mutual engagement, where community members interact and establish the norms and expectations in the group. Group norms are developed to govern how members interact with one another, with established rules and guidelines that can be used to ground the work they do and help to define acceptable and appropriate ways to work together. By establishing norms, expectations, and identifying their roles within the group, a team can be more effective and is more likely to achieve the goals set. Norms should be explicitly created and revisited often throughout the life span of a group to adequately calibrate the workings of the group members with one another.
The EDIG members never established norms for their group which affected the inquiry process that took place, with dominant members controlling the room and directing the ways data sources were selected for use. Without norms, members who attended but felt less empowered in the room were less likely to speak up, and therefore had limited influence on the discussion that ensued around data sources.

For a team of individuals to work successfully together, there needs to be a high sense of psychological safety, where all members hold the shared belief they won’t be punished when they make a mistake. Team members’ confidence in not being embarrassed, rejected, or punished for speaking up creates a climate “characterized by interpersonal trust and mutual respect in which people are comfortable being themselves” (Edmonson, 1999). Recent research conducted at Google over multiple years on hundreds of teams supports how psychological safety and the behaviors associated with it directly correlate to a “good” team, one that is successful and productive in meeting its goals. They concluded that what distinguished “good” teams from dysfunctional teams was the way teammates treated one another based on their established norms, where “the right norms could raise a group’s collective intelligence” but “the wrong norms could hobble a team” (New York Times Magazine, 2016). Psychological safety is demonstrated through specific behaviors, including conversational turn-taking and empathy, with the best teams having members who speak roughly the same amount, actively listen to one another, and show sensitivity to the feelings and needs of those around them.

In higher education, it is common practice for groups of educators and administrators to engage in developing norms to circumvent the power dynamics inherent in the context in which they work. Without established norms, the members of the EDIG potentially felt low levels of psychological safety which manifested itself in the dominance of certain members and clear power
dynamics on display. The lack of established norms resulted in group members relying heavily on the expertise of those more deeply involved in Guided Pathways and therefore the individual contributions based on personal and professional identities and expertise were less relevant in the decision-making process. As a result, it was unclear if trust was fully developed amongst group members, specifically when it came to members who attended inconsistently. The lack of developed trust resulted in the group remaining intentionally small and exclusive to outsiders, where more control could be maintained by certain members and the inclusion of other voices could be monitored. External members, or peripheries, were largely excluded from receiving invitations, and those that did receive invitations typically attended a single meeting and never returned. Notably, in three of these cases, the individuals were Black female administrators or faculty, suggesting that after one meeting they each felt unwelcome, unsafe, or found the group did not meet their expectations. With race and equity being the foundational work of the EDIG, the inability to retain peripheral members who could speak to the issues at hand directly and for their students, was a clear indication that norms should have been developed to ensure safety of current and new members.

The third component, a shared repertoire of resources, was developed amongst group members due to their preexisting relationships and the extended length of time in which EDIG members collaborated in this group. Through sharing stories of personal and professional experiences, learning as a collective about data sources, creating new data sources to address their needs, and making sense of the information at hand, the EDIG members formed a new collection of resources and references to include in their toolkits as practitioners to address student equity in the Guided Pathways program and beyond.

In a community of practice, members show their belonging through engagement with one another, reflecting and constructing an image of themselves as a member, and aligning themselves
with expectations of the group and coordinating action towards a common goal. In the EDIG, engagement levels varied, with waning attendance and participation on the part of the non-dominant members of the group, as shown via attendance sharing, and members indicating they often felt they were meeting for the sake of meeting. Therefore, the sense of “belonging” to the community of practice was less obvious for some members than others, however, they continued to attend due to expectations and interest in the work being conducted. The work of the EDIG was conducted over 13 months, which aligns with the idea of temporality in a community of practice – one cannot build a community without investing significant time, personal energy, and resources into the work. However, the commitment of time is not the same as the commitment of self, and in this study, I found that personal and professional identities influenced how much individuals willingly gave of themselves to contribute to the learning, sensemaking, and action that propelled the group.

**Sensemaking and the Ethical Implication of Data Use**

In this study, the members of the Guided Pathways community of practice worked together to make sense of different data sources and think creatively about ways to strategically address the student equity gap in their program. The members of the EDIG engaged in a social process in which learning took place via sensemaking, resulting in actions based on the experiences they had individually and as a collective. When group members encountered moments of ambiguity around data they sought to clarify what was going on by extracting and interpreting cues from their environment, and then used these cues as basis for a plausible account that provided order and "made sense" of what occurred. Through this perpetual cycle of making sense via cues, they continued to enact the environment in which they worked.

The EDIG represented a social context in which existing relationships determined who was in the room and who was not in the room. The limited membership of the group and identities of
those in the room created the context in which data were assigned value as shown via use, development and subsequent use, or abandonment. The group, and specifically those who attended most frequently or had the most dominant voices, were in control of determining which data were extracted as cues, how they were interpreted, and in deciding which sources would be utilized to act upon. It can be argued the EDIG work reflects existing power structures and potentially aids in developing new ones but through the application of data. Power dynamics between the data generators (e.g., students or faculty), the data keepers (e.g., institutions), the data analysts (e.g., EDIG members and OIE staff), and the decisionmakers (e.g., Guided Pathways program administrators) are all significantly altered in this context depending on the persons in the room and the individual and collective ways in which sensemaking took place. The ways in which data are selected, combined, analyzed and interpreted affects the students and faculty both included in the analysis and those excluded from the analysis. Without established best practices or guidelines on the ethical use of data sources in groups such as the EDIG, the decisions made, and changes implemented may be inadvertently perpetuating some of the very issues administrators are trying to address.

The Underlying Race Issue

The EDIG and its members were dedicated to using data to have conversations about race and the ways in which students from different racial and ethnic backgrounds are impacted by various factors both inside and outside of the institution. Using this information, members aimed to develop ways to address these identified needs within the Guided Pathways program to effectively close the equity gap in student achievement. Although the intentions were sound, the inequities identified were done so through the lens of administrators and faculty who brought their own personal, professional, and institutional experiences and identities to bear in these conversations. It
is well documented that educational experiences for minority students are substantially separate and unequal, and that institutions of higher education in the United States provide different learning opportunities to students based on their social status. This deep, systemic inequity manifests itself throughout all levels of an institution, with racial disparities between leaders, administrators, and faculty compared to staff and students.

Even in a group of highly educated and aware individuals, the fact remains the EDIG members and UCLA external research partners who attended most frequently were White. The two dominant voices in the room with the greatest institutional experience and potential control over actions taken utilizing the data were both White. As professionals and educators, the White individuals in the room were highly aware of the “White lens” through which they viewed information and would often mention this during discussion. However, without having more individuals of color in the room, this filter was automatically applied and essentially permitted to be the driver behind the data sources used or developed for use and the actions taken as a result. There were rarely voices of dissent, and few instances of anyone in the room who used their own experiences as a person of color to challenge the data in ways that may have led into deeper inquiry around why a specific data point might be different for students of color compared to their peers specifically due to race or ethnicity. In many ways, the conversations validated what was already “known,” but without members who could realistically speak to the findings or question their validity via their own experiences, the underlying issue of race was not fully addressed.

**Participatory Evaluation with Transformative Goals**

The RPP between the UCLA external partners and the Guided Pathways program at the College has its roots in evaluation. To a certain extent, all program evaluations are participatory, but the EDIG represents aspects of a practical participatory evaluation but with transformative
evaluation goals. As defined by Cousins & Whitmore (1998), participatory evaluation can be differentiated into two streams: (1) practical participatory evaluation (P-PE) – a practical collaboration between evaluators and stakeholders that “supports organizational and program decision making and problem solving” (p. 88); and (2) transformative participatory evaluation (T-PE) – an evaluation approach that “seeks to empower members of community groups who are less powerful than or are otherwise oppressed by dominating groups” (p.88). P-PE is a Western-based approach with the central function of encouraging evaluation use toward decision making, whereas T-PE has roots in the developing world with the goal to “democratize social change” (p. 90).

Although different in their goals, functions, and ideological and historical roots, these two approaches have substantial similarities and overlap in meaningful ways. For example, P-PE projects may result in empowerment of participants or a T-PE project can also have practical value used to implement change. Both may produce “valid local data,” or data from a practitioners’ perspective, and both types provide rationale for collaborative inquiry whereby this resulting data is “based on a shared understanding and join construction of meaning” (p. 92). From an evaluation perspective, we might think of the EDIG as a participatory process that promotes the development of inquiry skills to produce actionable “valid local data” for use in promoting social change by closing the equity gap in achievement.

Cousins and Whitmore (1998) propose the use of a “process dimension” framework to analyze collaborative inquiry efforts such as the EDIG. Deciding who participates, to what extent, and who controls the decision making, impact the ways in which participatory evaluations are conducted. To differentiate amongst these processes, evaluations can be analyzed across three dimensions: (1) control of the evaluation process (from research-controlled to participant-controlled); (2) stakeholder selection for participation (from primary users to all legitimate groups);
and (3) depth of participation (from consultation to deep participation). Based on the findings of this study, the EDIG would fall towards the middle in terms of control, with lack of ownership on the part of group members and underdevelopment of the community of practice resulting in undefined control. For stakeholder selection, true T-PE evaluations would include all the individuals of a community group who have less power than decision makers, such as the College 1 students of color on whom this group was formally based. As it was developed, the EDIG was comprised only of administrators and faculty with stakes in the program and power to make changes to it, therefore meeting the P-PE definition of primary users rather than all legitimate group members. Finally, in the depth of participation, the evaluators (external UCLA partners) acted as facilitators and consultants and the participation of EDIG members although consistent, was not deep in that work of the group was only conducted within the confines of the defined meetings. T-PE evaluations require participants to dig deeply into their own biases and assumptions and think broadly about social factors that may impact the ways in which power is manifested, but without established norms and psychological safety amongst EDIG members, the deeper work involved in T-PE evaluation was not accomplished and the EDIG fell more squarely into the P-PE dimension.

When examining the EDIG as a community of practice, there are numerous lessons learned for participatory and transformative evaluation practices. The EDIG was a first attempt at sustained collaborative inquiry amongst practitioners who had power to utilize data and take action to promote social change via transforming the Guided Pathways College 1 course. Future iterations of this group could focus on increasing the participation of all stakeholders to truly reach the transformative goals from a systemic standpoint and not just at the course level. Intentional efforts could be made to ensure that those who are invited as members have the same understanding of the practical and transformative goals of the group, and that every individual should be included in all
aspects of the evaluation, even the highly technical ones, such as data analysis and interpretation. By increasing the level of involvement of all members, the potential to build their internal capacity and empower them to make better decisions using data would have been impacted. Finally, this work points to issues and questions posed by Cousins & Whitmore (1998) including power and its ramifications, ethics, participant selection, technical quality, cross-cultural issues, training, and conditions that enable participatory evaluation. In future versions of the EDIG, these issues should be framed at the outset of the work and revisited often to truly understand the ways in which the collaborative efforts of the group are addressing or ignoring these key issues and how it affects the resulting actions taken.

Implications

By examining the development and first iteration of the EDIG, I have highlighted how a group of administrators and faculty in a community college context engage in making sense of data, the learning that takes place, and how decisions are made and acted upon. In this example of collaborative inquiry, sensemaking enables these organizational processes as it provides conditions for group members to engage with cues from the environment that encourage them to question their own assumptions about data, including where it comes from, what value it has, and whether it supports or refutes their personal beliefs. In this way, sensemaking allows for a challenging of the frames by which individuals construct their personal and professional understanding of what takes place around them. Accordingly,

In environments where ambiguity is high, cues are often unclear, actions muddy, and meanings equivocal. The relationship between actions and outcomes is difficult to understand. However, face to face communication can create learning at all levels by
enabling people to better understand themselves, their situation and how to make sense in
the future. (Maitlis & Christianson, 2014, p. 92)

The conversations between people in the group generate a collective sense of what it is occurring,
and as sensemaking is an ongoing and iterative process, the individuals within the group are
constantly shaping meaning from one another and every data source. When this takes place in a
social gathering, such as the EDIG, deeper learning takes place and information within the group
has the potential to be shared outside with the greater community in which all members work. These
learnings impact each member and can help to improve their own practice as faculty and
administrators and reinforce their commitment to the domain of interest that defines their common
relationships.

Paying attention to the process of sensemaking, rather than the resulting products provides a
window into the ways data are used in making decisions. Having a better understanding of how
group membership and identities influence the outcomes lends itself to a more a critical way of
evaluating what actions are taken at an institutional level. Power and control of specific individuals,
particularly those who feel empowered to act and make decisions are important to study as they may
perpetuate systemic inequities for organizational members and the students being impacted.

Limitations

This study was not without its limitations. Although case study methods are often criticized
for their inability to generalize to other contexts or participants, my approach to this case study was
one of “naturalistic generalization.” According to Stake (1995), naturalistic generalization applies to
the relationship between the case study and the reader’s experiences, resulting in a more natural
understanding of the phenomenon. To some, this exploratory qualitative approach is too subjective,
however, in the case of the DIGs in their first year of implementation, the experimental nature of this work lent itself to this approach.

The learning and sensemaking processes are ongoing and dynamic, so time was a limitation in this work in that only 13 months were dedicated to data collection efforts. It would have been beneficial if extended study could have been made of both DIGs to better understand how the sensemaking process changed over time based on fluctuations in membership, data sources developed and used, or other factors that could arise over a greater duration of time working together. Specifically, having a longer period to assess the ways EDIG members made sense of enacting changes to the College 1 curriculum after seeing results would have been an interesting addition to this study. If more time were available, I would include additional data collection efforts and study participants. Additional data sources, such as videotaping the meetings to capture interactions between group members in the room, could have revealed more nuanced instances of power, control, and the social aspects of the groupwork. However, the advantage to observations were that individuals in the room were able to interact naturally without the influence of being videotaped. Knowing these groups were social with both personal and professional identities on display, videotaping the sessions may have been intrusive and interactions more impersonal as a result.

One significant limitation was the small size of the Guided Pathways community of practice and my inability to secure an interview with the seventh core group member. As the Director of Student Equity, her insights would have been invaluable to include in this work for numerous reasons, however, her lack of participation in this study may also be an indication of her willingness to talk about the group overall. Ultimately, her participation in the interview process would have been ideal. If this study was fully defined at the beginning of my observations with the DIGs, I
would have included interviews with all participants at the commencement of the group and once again towards the end of data collection. This would have allowed for deeper understanding of how all individuals approached the sensemaking process and how it may have changed over time based on their involvement level with the groups. Other potential sources of data could have been interviews with members who showed up infrequently or those who came to two or fewer meetings and never returned. Although these members would not be included in the sensemaking process, they might be able to speak to the importance of existing relationships and their perceptions of the social aspects of the group.

This study was never intended to be a comparison of the two data-focused inquiry groups, EDIG and CDIG, as their purposes, focus, membership, and structures were different. However, being fully embedded in the two separate groups could have provided interesting findings on how sensemaking occurred in these two different contexts, specifically for overlapping members. With these groups continuing, it would be a wonderful contribution for further research on these groups to extend the findings of this study.

**Future Research**

This study is the first to look at how learning and sensemaking results in action using data within a Guided Pathways community of practice in a community college context, however, it is critical for additional research to be conducted in this area. Overall, sensemaking enables strategic change, organizational learning, innovation and creativity (Maitlis & Christianson, 2014). The EDIG itself was an innovative way to embrace data and attempt to address a significant problem faced by the Guided Pathways program, however, additional research is required to more deeply understand how individuals learn from one another and co-construct knowledge, how this process impacts the sensemaking process, and the outcomes of decisions made in this context.
With an abundance of institutional and evaluative data on college campuses driving decisions being made, it is important to better understand who has access to the data, how it is selected for use, what actions are taken and why. Currently, Hispanic or Latino/a/x and Black students are completing at lower rates than their White and Asian counterparts and any decisions made by administrators to address this disparity should be evaluated and documented thoroughly to ensure multiple voices and perspectives are included in the conversations based on data.

The creation of DIGs was a worthwhile experiment that resulted in actions by the Guided Pathways community of practice to address certain aspects associated with the student equity gap, however, not all community colleges have dedicated groups such as this to study. Future research should include continued evaluation of the DIGs with focus on new data resulting from any changes implemented by the group in year one. In addition, creation of DIGs and even a network of community college DIGs would be an area worth future study. Additional work could be conducted using the next version of the DIG but applying the participatory evaluation frameworks from the outset to better understand how the differing levels of participation impact the key issues outlined in this work.

Based on my experience, it was clear that DIGs can be a valuable tool to get practitioners with a common interest in a room to review and use data to explore and drive questioning around an issue. However, as with any group, the roles of all participants need to be clear and norms needs to be established from the start. Those who work with the data intimately, such as institutional researchers, need to be able to provide data in a way that tells the story rather than assume data literacy is high enough across the membership to ensure complete understanding. Future research should include a retooling of the existing EDIG to address the limitations outlined by group members to determine if this affects the ways data are used. Another approach would be to focus on
the inquiry component of the work rather than the data sources themselves. In fully embracing inquiry techniques and considering the questions asked and the path questioning takes, a different understanding of how sense is derived from cues could be determined.

**Concluding Remarks**

The goal of this research was, in part, to observe and capture the learning and sensemaking processes of a group of community college faculty and administrators using data to address the biggest issue in higher education – student equity in achievement. In many ways, this study was an analysis of the social and psychological aspects of human interactions that take place in any organization, but as a community of practice, the decisions made and implemented by these practitioners impact the lives of every student in the Guided Pathways program and beyond. With the DIGs in this study representing the first iteration of this work, I hope the findings from this research provide direction for others interested in collaborative inquiry efforts and ways to think about how group membership, personal and professional identities, and the deep desire to act affect the directions taken by decision makers in this context.
Appendix

Appendix A. EDIG Membership Attendance

<table>
<thead>
<tr>
<th>College Members</th>
<th>Total</th>
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<tbody>
<tr>
<td>Guided Pathways Faculty Lead</td>
<td>18</td>
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<tr>
<td>Associate Dean, Guided Pathways</td>
<td>17</td>
</tr>
<tr>
<td>Research Analyst (Equity), OIE</td>
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</tr>
<tr>
<td>Director Professional Development</td>
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<tr>
<td>Director of Student Equity</td>
<td>10</td>
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<tr>
<td>Research Analyst (Adult Edu), OIE</td>
<td>10</td>
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<tr>
<td>Counseling Faculty Lead</td>
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<tr>
<td>Executive Director, OIE</td>
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<tr>
<td>STEM Faculty Co-Lead</td>
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<tr>
<td>Year One Guided Pathways Lead</td>
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<tr>
<td>Dean, Instructional Services</td>
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<tr>
<td>Research Analyst (Workforce), OIE</td>
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<tr>
<td>Dean, Student Life</td>
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<th>Total per Meeting</th>
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140
## Equity DIG Meeting

|       | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | Total |
|-------|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|      |
| UCLA Members |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    | 17 |
| Dr. Christie  |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    | 19 |
| Doctoral Student 1 |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    | 19 |
| Doctoral Student 2 |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    | 14 |
| Me             |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    | 13 |
| Total per Meeting | 3 | 2 | 4 | 4 | 3 | 4 | 4 | 4 | 3 | 2 | 4 | 3 | 4 | 3 | 4 | 3 | 10 | 7 | 8 | 9 | 13 |

### Average per Meeting

8.6 (5.2 College Members, 3.4 UCLA Members)
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