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**Bissonette, Matthew D.** ***Analyzing the Design and Evaluation of Summer Bridge Programs at Three Community Colleges within the Minnesota State System***

## Abstract

This multi-case study was intended to understand the design and evaluation of summer bridge programs at three community colleges in the Minnesota State system. Through public information review, structured interviews, and institutional data review this study examined methodology used to design the programs, evaluation approaches used to determine success, and evidence to support the design and evaluation of each program. Three colleges from varying sized communities across the state were chosen for this study. The results suggest that regardless of the size of the college or the geographic location, each contained a focus on academics, social acclimation, and either an identified population segment or underprepared students in general. While clearly defined models exist for both the design and evaluation of programs, these colleges use a mix of best practices and intuitive logic to determine the design and evaluation of their programs. The outcomes-based evidence provided by the programs revealed the use of a team guided holistic program review approach more akin to continuous improvement methodologies than evaluation. The success of these programs comes from the ongoing commitment of the individuals involved rather than any defined process.

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## Table of Contents

## List of Tables

## List of Figures

## Chapter I: Introduction

The mission of community colleges is rooted in public policy that they will serve all of the people in their region regardless of ethnicity, creed, gender, or socio-economic status through open access and the ability to benefit admissions policy (American Association of Community Colleges, 2017). With this open access, community colleges are finding an increasing number of students who enroll in the college are underprepared and in need of additional support to be successful.

The United States high school graduation rate is ranked 9th in the world. Looking more closely at key subjects, the United States is ranked 36th in math, 18th in reading, and 23rd in science (OCED, 2016). These numbers paint a picture that in the United States, students are not as prepared as their international counterparts. "The national report card on higher education states that too many high school graduates fail to reach proficiency in math and science and are unprepared for college-level courses" (Raines, 2012, p. 22). The perceptions held by high school students highlights a disconnect in that 86% of students believe they are academically ready for post-secondary education, yet 68% take at least one developmental education course (Center for Community College Student Success, 2016).

The underpreparedness trends recognized at the national level hold true for the state level in Minnesota. When the national graduation rate in 2012 was 81%, Minnesota was at 79% (National Center for Education Statistics, 2016). The statewide graduation rate reported in 2015 did reflect an increase to 81.9% with 72% of graduates going on to some level of higher education. In 2016, statewide accountability testing showed that high school students statewide scored 59.6% in math, 59.8% in reading, and 55% in science (Minnesota Report Card, 2016). These levels leave more than 40% of the students underprepared in these core subjects.

State of Minnesota data reports that 26% of all 2013 high school graduates in the state enrolled in one or more developmental class within two years of graduation; 85% of these were at Minnesota public 2-year colleges. Within the 2-year college population, this percentage represents 49% of the students enrolled. These percentages within Minnesota are lower than the noted 68% of the national average. It is also noted that students of color and lower-income are overrepresented in developmental course credits (Minnesota SLEDS, 2017).

These numbers confirm that large numbers of students are leaving secondary academic systems academically unprepared for post-secondary education. Colleges and universities are confronted with this gap when students apply and enroll in classes. Added pressure is placed on post-secondary institutions that receive these underprepared students to provide remediation and developmental education to get them prepared to take college level courses (Johnson-Weeks & Superville, 2014). This level of underpreparedness is why college transition programs are becoming more popular with these institutions (Academic Impressions, 2012).

The focus of college transition programs and those they serve can vary greatly with their programmatic content and implementation (Lonn, Aguilar, & Teasley, 2015; Raines, 2012). Regardless of the scope or scale of the program, the core function rests with preparing new students to be successful with their education (Raines, 2012). “Historically, these programs have been designed to provide academic support and information regarding college campus life, orient students to the institutional culture and develop at risk student's self-esteem and self-efficacy" (Lonn et al., 2015, p. 91). It is common that they focus on both the academic and social aspects of college life (Cabrera, Miner, & Milem, 2013; Lee & Barnes, 2015).

Minnesota post-secondary education institutions host many summer transition programs. However, there are some differences in what is offered between private and public universities as

well as at public community colleges. Most private universities in Minnesota host academic enrichment programs during the summer. These are typically in a fee-based camp format and range in scope from languages and theater to athletics, academics, and the sciences (Minnesota's Private Colleges, 2017). These may be designed to address target populations or to have a focus on academic and social connectedness; however, the primary purpose is enrichment-focused and not necessarily remediation or transition-focused.

The Minnesota State system offers summer enrichment camps such as RoboTech, and Scrubs Camp but tend to have more summer college preparation and transition-focused programs (Minnesota State Colleges & Universities, 2015). There are a variety of summer transition programs, which tend to be more prominent at 2-year academic institutions. Many are funded by the state or through grant funding (Sablan, 2014). This includes academic bridge programs designed to focus on core skills like math and reading. There are also prep academies, which focus on general improvement of academic skills. Other programs are designed to help underrepresented populations become acclimated to higher education (Minnesota State Colleges & Universities, 2015).

Many of the higher education institutions in Minnesota utilize TRiO. TRiO is a portfolio of federally funded programs aimed at supporting students for post-secondary success. It has a number of programs, one of which is Upward Bound, a college transition program that offers both year-round and summer bridge programming. Upward Bound is offered at 23 colleges and universities across the state, 19 of which are part of the Minnesota State system with 15 being at community colleges. Other variations of TRiO Upward Bound include Veterans Upward Bound and Upward Bound Science and Math (Minnesota TRiO Association, 2017).

This diversity of programming highlights the variations in program design. These variations have begun to suggest that there may also be a lack of consistent success measures across programs. This would also lead to the lack of consistent, rigorous evaluation as a whole outside of grant required metrics on the success of these types of programs.

The phenomenon of underpreparedness is being researched; however, there is a general lack of big picture analysis of the problem (Sablan, 2014). There are few studies, but those that do exist suffer from one or more of the following limitations: a lack of data aligned to outcomes (Raines, 2012; Sablan, 2014; Strayhorn, 2011), focus on a single institution (Douglas & Attewell, 2014; Sablan, 2014), lack of a control group (Allen & Bir, 2012; Tomasko, Ridgway, Waller, & Olesik, 2016), and limited following of students in the academic years following participation to gauge award completion (Johnson-Weeks & Superville, 2014; Wathington, Pretlow, & Barnett, 2016). According to Lonn et al. (2015), "The impact and success of summer bridge programs have yielded inconsistent results. While some studies indicate that Summer Bridge programs improve student academic success others showed no impact and some indicate decreased academic success" (p. 91). These limitations are consistently found in the literature and suggest that success of programs, specifically regarding their efficacy and student success, are mixed (Douglas & Attewell, 2014; Ghazzawi & Jagannathan, 2011).

There is a need for fair and consistent evaluation of college transition programs that is not happening today (Bir & Myrick, 2015; Garcia & Paz, 2009). This may be due to administrators who have not been trained to do assessments to look for simple solutions such as one-time satisfaction surveys or end of summer questionnaires to evaluate their programs (Cabrera et al., 2013; Garcia & Paz, 2009). There are also budget constraints and a lack of trained people that

can limit the scope of evaluation activities (Grigal, Dwyre, Emmett, & Emmett, 2012). The mix of results reflects the need for more intentional study of college transition programs.

**Statement of the Problem**

Colleges and universities are implementing college transitions programs as a model to increase academic preparedness and social acclimation of students with the intention that they will be retained and complete their education. However, the design and evaluation of these programs are varied and diverse. This inconsistency leaves some question as to the effectiveness and efficacy of the programs.

**Purpose of this Study**

This study explored the design and evaluation of summer bridge programs, a specific type of college transition program, at three community colleges within the Minnesota State system. Understanding how program design and evaluation theory are used to develop and assess summer bridge programs and by comparing the intended outcomes with the actual outcomes, provides information that can be used to further evaluate them as a strategy for retention and completion. This focus comes, in part, due to the recommendations for further study that were identified in prior research.

Siebke (2015) conducted a case study exploring the barriers that prevent college transition program participants from academic success. This study of Be Your Best, a college transition program at Riverland Community College, resulted in recommendations for future studies which included: the need to include additional ages and ethnicities; further exploring the needs of and ways to support underprepared students, including programs in different geographic locations to examine differences in rural versus urban; and longitudinal studies following the students after completion of the program.

## Research Questions

This study explored these research questions:

1. What methodology was used to develop the program design to accomplish the determined goals and outcomes of the summer bridge programs at three community colleges within the Minnesota State system?
2. What evaluation framework or approach is being used to determine the success of the summer bridge programs at three community colleges in the Minnesota State system?
3. What evidence is present to indicate the stated goals and outcomes are being met within the summer bridge programs at three community colleges within the Minnesota State system?

## Significance of the Study

This study is significant for two reasons. First, this study looked at how theory drives the design and evaluation process of summer bridge programs at three colleges: one from rural area, one in a small city, and one from an urban setting. This diverse sample provided a broad view of how program design and evaluation is implemented across settings. This is significant in that the findings can be used by other colleges in similar population settings to gain insights particularly around how to design and evaluate a summer bridge program as a recruitment and retention strategy. The second is that this study compared actual data associated with each institution and their summer bridge programs then related it back to the design and evaluation criteria for each program. The comparison was intended to validate the design and evaluation making it possible to duplicate the program by other colleges in the system and to find similar success.

## Assumptions of the Study

It was assumed for this study that the summer bridge programs at each of the sample colleges would be active and accepting students. If a program were closed, information gathered would have been limited to past practice. Another assumption was that the participants would be open and transparent about their programs. The interview phase of this study was intended to delve more deeply into the institutional knowledge of the program not readily available via the website review. Lastly, it was assumed that the Integrated Student Record System (ISRS) data at each college would be available and coded in a way that allows for comparison to complete the data review portion to compare actual results against stated success metrics.

## Limitations of the Study

This case study reviewed summer bridge programs at three community colleges within the Minnesota State system. The three colleges were chosen based on size of the city and location. This non-randomized approach could have had sample bias associated with the choices. With a case study, the findings are not generalizable due to the nature of case studies in that they are specific to the person/institution being reviewed. A direct comparison was limited to program design features and evaluation processes. The review of success measure data between programs varied based on the actual program success measures. The study was also limited in how many years of data was reviewed, which depended on how the programs collected and stored their data.

## Definition of Terms

The following are defined terms used in this study:

**College transition program**. College transition programs are programs that provide the academic and other support services students need to enter college (United States Department of Education, 2016).

**First generation student**. A student is considered to be first generation if neither parent has a bachelor's degree (Minnesota TRiO Association, 2017).

**Persistence.** Persistence is the act of continuing towards an educational goal (Walker, 2008).

**Retention rate**. The retention rate is the percentage of a given cohort enrolled at the institution the following fall. Retention rates may be reported over subsequent years (Walker, 2008).

**Summer bridge program**. A summer bridge program is a program typically held during the summer that is focused on students who are considered "at-risk." The programs aim to address transitional issues such as academic, social, or emotional challenges through support and remediation (Academic Impressions, 2012).

**TRiO**. This program is a nationwide, federally funded grant committed to providing educational opportunity for all Americans regardless of race, ethnic background, or economic circumstance (Minnesota TRiO Association, 2017).

**Underprepared**. Underprepared describes an academically deficient student from a diverse population in terms of age, socioeconomic condition, previous academic performance, standardized test scores, and emotional health that have enrolled at colleges or universities of all types nationwide (Wilmer, 2008).

**Underrepresented.** Underrepresented refers to any individual who is historically underrepresented in American higher education in terms of race, ethnicity, nationality, gender,

parental education level, socioeconomic status, disability, sexual orientation, gender identity, gender expression, age, or spirituality/religiosity/philosophy (Minnesota State Colleges & Universities, 2015).

## Chapter II: Literature Review

The open access public policy of community college is intended to make higher education more accessible to anyone who can benefit. The challenge seen by these institutions is that there are an increasing number of underprepared students enrolling. The retention and completion rates of these students lag behind their peers due to not being prepared to succeed in higher education. As a means to address this tide of underpreparedness, educational institutions are implementing the use of college transition programs focused on the academic preparedness and social acclimation of students.

This study explored the design and evaluation of summer bridge programs, a specific type of college transition program, at three community colleges within the Minnesota State system. Understanding how program design and evaluation theory was used to develop and assess summer bridge programs and by comparing the intended outcomes with the actual outcomes, provided information that can be used to further evaluate them as a strategy for retention and completion.

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This chapter reviews the literature on college transition programs and seeks to provide an overview of the theoretical foundations for the design features and evaluation used by college transition programs as well as the various types of transition program.

**Theory Underlying the Design of a Transition Program**

Transition programs have evolved as developmental theories have taken form. Their roots can be traced back to where the concept of symbolic interactionism was created by George Hebert Mead, which noted that mind, self, and society all have a role in the development of an individual (Herman-Kinney & Reynolds, 2003). According to these authors, more specifically, a person's mind gives them the ability to use symbols to create meaning about the world around them, that the self, when referring to a person, is an individual's ability to consider and reflect on the how they are perceived by others, and that the world or society describes where all of these interactions take place.

One of Mead's protégé's, Herbert Blumer (1973), took Mead's theory of symbolic interactionism further to say that people will act toward things based on the meaning those things have for them. The author noted that as people socially interact, the meanings are modified based on how one interprets the interactions. This essentially lays the foundation that people will make meaning out of the experiences in their lives based on the interactions they have with others and their perceptions of what happened.

As people make meaning out of their lives, their reality is changed based on their perceptions. This creates the need for a change. The change comes through transition whose meaning is based in the type of transition such as was it expected; the context of the transition, such as in relationships; as well as the impact in how it affects their life (Evans, Forney, &

Guido-DiBrito, 1998). Schlossberg (as cited in Evans et al., 1998) described the processing of these items as "moving in, moving through, and moving out of the transition" (p. 232).

With this new thinking about transitions, Mead and Blumer's theory was taken yet another step further by Schlossberg who defined the theory of transition. Schlossberg used the 4 S's (situation, self, support, and strategies) to define his theory (Evans et al., 1998). When aligned with Mead and Blumer's theory, there is much overlap. Evans and colleagues asserted that the overlap comes with the alignment of mind and situation—a direct match of self—and the idea of support and society. There is consistency in that both describe a transition of awareness from the mind of an individual to the person themselves to the world around them and how they interact with it. The greatest piece of new thinking comes with strategy that deals with the action a person takes and how they cope with the new reality.

In the 1960s, the theory of student development led to the creation of a service model based on the premise that each student is a unique individual, and the student and the environment in which they learn should be considered. Ultimately, the student must take responsibility for their part in the education process (Walker, 2008). "The foundational theory upon which these programs are based lies with a combination of behavioral and developmental theories. The concept is that the programs are created using a developmental approach, but the actual delivery rests with behavioral theory" (Johnson-Weeks & Superville, 2014 p. 5). When these concepts are taken together, the foundation of transition programs can be seen.

Students who enter transition programs typically do not have the skills necessary to be successful in higher education. The developmental approach grounds the program in a theory that focuses on their development and growth of key skills needed to be successful. The origin

of the transition program concept can be traced back through the literature and attributed to theories of attrition and persistence (Stolle-McAllister, 2011).

Tinto's interactionist theory of student persistence describes a series of influences and commitments made by and upon the student as they move through their education. This process has three parts. The first part begins before the student even enrolls, who they are, their education, qualifications for college, and their family attributes, which all play into the future success of the student (Tinto, 1975). This historical framework and familial context stay with the student as they enroll.

Part two of the process covers the timeframe that the student is enrolled and moving through their education. The two key dynamics of part two are the individual's academic and social integration. The academic portion relates to the student's commitment to goals regarding their academic success and their ability to adapt to the higher learning environment. The other portion focused on social integration depends on connections with the institution both through peer-groups and faculty interaction (Tinto, 1975). Combined, the two portions of part two define the culture for the student.

As a person finds their space in the culture, they begin to find where and how their goals and values align with the perceived goals and values of the institution. If there is incongruence either on the academic or social side of the equation, the likelihood of a student dropping out begins to increase (Tinto, 1975). This begins part three where the student makes a decision to persist or to dropout.

The eventual decision to dropout, according to Tinto (1975), is the outcome of the process and the many interactions between the individual and the institution. "When students do not hold values similar to their institutions and have insufficient collective affiliation with peers,

faculty, and staff they're more likely to voluntarily withdraw before the end of their first academic year" (Lee & Barnes, 2015, p. 405). Schlossberg's 4 S's describe the influences and pressures that the student encounters in this process. How the student reconciles their position in the college comes within their perception of situation, self, support, and strategies. A negative student perception in any of these four areas erodes their confidence in the college and their ability to continue.

Understanding the challenges that students face on their integration journey not only plays into how to design the program but also in how to evaluate whether it is fulfilling its mission. Program evaluation theory is part of the design of any program. This describes how to measure whether the program will achieve its intended outcomes (Madaus, Scriven, & Stufflebeam, 2012). It is also the process that helps identify what needs to change to better align with the goals of the program. "Program evaluation theory is a coherent set of conceptual, hypothetical, pragmatic, and ethical principles forming a general framework to guide the study and practice of program evaluation" (Stufflebeam & Shinkfield, 2007, p. 62). This is the construct that forms the framework around which an evaluation can take place. This process would include the systematic collection of information in order to determine the effectiveness and efficiency of the program.

**Transition Program Design**

Transition programs focused on academic enrichment and intervention are considered one of the oldest strategies to help underprepared students to achieve college success (Garcia & Paz, 2009; Slade, Eatmon, Staley, & Dixon, 2015; Strayhorn, 2011; Wathington et al., 2016). These programs are referred to by many names such as pipeline program, summer bridge program, and college transition program. Colleges and universities utilize these programs

differently based on institutional goals and needs. A retention strategy, recruiting target populations, or preparation for specific coursework or programs may dictate the focus of the program. The way post-secondary education institutions implement a transition or bridge program largely depends on their perspective of and need for the program.

**Types of programs.** Program design theory supports that the design of college transition programs should include both academic and social components to address the whole scope of what a student will experience in their transition from high school to post-secondary education (Strayhorn, 2011). How and where these elements are addressed is in part why there is the variation in transition program design. Models of programs are varied and numerous but typically fall into three main categories: a single standalone program or singleton, comprehensive, or enhanced comprehensive (Fowler & Luna, 2009). Table 1 describes the three categories and the features of each.

Table 1

*Matrix of Transition Program Types*

| | Singleton | Comprehensive | Enhanced comprehensive |
|---|---|---|---|
| Target student | Academically proficient | Academically proficient; middle achieving | Middle to low achieving |
| Location | High school | High school and college | High school and college |
| Student mix | High school only | High school only, mixed with college | High school only |
| Instructor | High school and college | High school and college | High school and college |
| Course content | Special curriculum<br>College curriculum | Special curriculum<br>College curriculum | Special curriculum |
| Credits earned | Exam-based<br>Course-based<br>In-escrow | Exam-based<br>Course-based<br>In-escrow | Course-based |
| Degree of intensity | Low – Just one of many educational experiences had by students in their junior or senior year | High – The primary educational experience during the last years of high school | High – Address social and behavioral, as well as academic needs |

Singleton, which is for high school students, is offered as electives through advanced placement (AP) and concurrent courses. Comprehensive programs allow for high school students to take coursework that is transcribed credit with a college or university such as an International Baccalaureate (IB). In Minnesota, students can take post-secondary enrollment option (PSEO) courses where they leave school during school hours and attend college cost-free (Minnesota State, 2017). Additionally, there are enhanced comprehensive credit-based programs that are focused on preparing the middle to lower achieving students. Summer bridge programs

align in this category. These programs typically come with additional features to support the student such as counseling and navigating college paperwork (i.e., admission and mentoring) (Fowler & Luna, 2009).

The variety of program type is driven by institutional intention. The institution's focus for the program defines its purpose. This purpose must address both the needs of the institution and the needs of the student since both have a role in student success as was discussed earlier in Tinto's interactionist theory (Tinto, 1975).

From a design perspective, the theoretical foundations laid out by Tinto and others show a need for programs to include both academic as well as social aspects. It is also noted that regardless of program type, the most successful programs have a target audience of students (Venezia & Jaeger, 2013). It appears that many post-secondary higher institutions focus on target populations typically of underprepared and under-represented students with the aim of increasing their retention (Lee & Barnes, 2015; Sablan, 2014). These three foci of academic, social, and target population form the flexible framework of transition program design.

The design of programs can have a mix of these foci. For example, a program could be focused on recent high school graduates going into engineering. It would likely have a strong academic focus. The program would include social pieces to connect the students to the faculty, the engineering program, and the institution. The target population here would be any students going into the engineering program. A variation of this scenario might be that the program is designed for international students going into the engineering program. The international students may be considered an underrepresented population as compared to the rest of the institution. In this case, it would still have an academic portion to prepare them for the program, but the greater emphasis may be on the social and cultural aspects that connect the students to the

institution. The target population would then simply be international students. Another variation might be a focus on women in engineering. In this case, it again looks at an underrepresented population, this time based on gender. However, in this case, the mix of academic and social may be more balanced if the cohort is all from within the secondary education system in the United States.

The complexity of program design and evaluation may lead post-secondary education institutions to look for pre-packaged programs that fit their institutional needs rather than create their own. One option colleges and universities have is to apply for federal TRiO grants. These grant programs are focused on providing greater access to post-secondary education (Minnesota TRiO Association, 2017). Over 2 million students have graduated since 1965 with support from TRiO programs such as Upward Bound (Venezia & Jaeger, 2013). Upward Bound is one of the many grants offered by TRiO. This program helps students prepare for college by providing academic support in literature, composition, mathematics, and science (Minnesota TRiO Association, 2017). With these grant-funded programs, an institution can address underpreparedness with a proven model of success without having to create their own program or find budget dollars to operate it.

**Academic.** College transition programs, while shifting to a more student success focus, have long been implemented for academic preparedness (Wathington et al., 2016). This preparedness typically takes one of two paths. The first can come in the form of remedial education for underprepared and underrepresented students. The other path is aligned with program specific preparation and may or may not account for underpreparedness but is instead focused on connecting and successfully integrating a science, engineer, or math student both academically and socially in hopes of greater retention (Tomasko et al, 2016). Many college

transition programs have a base focus that can be used across various populations whether it be preparing students for the rigors of first-year engineering or working on improving mathematics placement scores (Doerr, Ärlebäck, & Costello Staniec, 2014).

***Underprepared.*** There is general agreement within academic circles around the importance of academic preparation; however, research still shows that a great many high school graduates lack the necessary skills to be successful in college and have become referred to as academically unprepared or underprepared students (Strayhorn, 2011). "Estimates of the percentage of all undergraduates who require remediation range from 20% to 60% for students attending open-access community colleges placing remediation at higher rates than students at 4-year institutions" (Wathington et al., 2016, p. 151). It is estimated that public colleges spend more than 1 billion dollars annually on remedial education (Strayhorn, 2011). The problem of underpreparedness is costly from a remediation standpoint including the expenditure of time and money on the part of the student and the institutions.

Programs that are designed to assist underprepared students focus on populations that come from high schools that failed to provide adequate preparation. The college can give students a boost to offset the poor preparation (Lee & Barnes, 2015). "Other programs are designed to supplement classroom learning or to compensate for academic and social deficits students accumulate throughout the k-12 education pipeline" (Strayhorn, 2011, p. 144). According to Strayhorn, the viewpoint of programs focusing on underprepared students hold the perspective that the students who participate will academically perform better than those who do not attend any program.

Nonetheless, not all programs are for remedial education. Project Advance, which was started at Syracuse University in 1972, is recognized as one of the oldest credit-based transition

programs. It was originally designed to help high school seniors earn college credit during their senior year when they had already fulfilled all the secondary requirements by Grade 11 (Fowler & Luna, 2009), thus introducing an early retention and college completion model.

The intentional recruitment of individuals who plan to participate in science, technology, engineering, and math, but present as underprepared for those majors, are a segmented population that many colleges accommodate by building specific transition programs (Stolle-McAllister, 2011). Doerr et al. (2014) reported a study conducted by Syracuse University regarding first year engineering students who participated in a summer bridge program that was focused on math skills. According to the authors, there was success in closing the math grade gap between participants and non-participants. The cohorts who focused on specialized math skills showed statistically significant increases in math grades of those who participated in the program versus earlier cohorts. The students' comments reflected their feelings. Many reported that after participating in the program they felt better prepared for pre-calculus in the fall and felt more positive about their ability to learn math.

Higher education institutions also use transition programs as a pathway for conditional admittance. Sablan (2014) noted that some institutions choose to require first-generation students, low-income students, students of color, or students who had lower than average admission test and high school grade point averages to participate in a summer bridge program to raise their chances of being retained. The Aggie Impact Scholar Program (AISP) at North Carolina A&T State University, was originally designed as a provisional or conditional admit program but moved to a retention model focused on those students whose application profile noted their likelihood of having challenges in college (Slade et al., 2015). The institution's

decision to adjust the AISP program from a selection process model to one of retention demonstrates the type of actions institutions must take to continue to move students forward.

***STEM.*** With the growing focus on science, technology, engineering, and math (STEM) and the continued gap of underpreparedness, post-secondary education institutions are offering summer bridge programs for new students enrolling in these majors as a way to acclimate them to the program as well as the coursework. Institutions that either include a STEM component or have a STEM emphasis in their transition program are more likely to have higher numbers of graduates from minority populations in STEM areas of study (Stolle-McAllister, 2011). The academic and social connection to programs can help to retain students.

"Qualitative data support the theory that students need social interaction and a sense of belonging in addition to academic support structures to persist in STEM" (Tomasko et al., 2016, p. 90). This again speaks to Tinto's interactionist theory suggesting there are both academic and social commitments to be made by both the student and the post-secondary education institution.

In a study conducted at Ohio State University, researchers looked at the retention rates of target populations. Within Ohio's Science and Engineering Talent Expansion Program (OSTEP), underrepresented minority women and first-generation students who participated in the college transition program had greater retention rates in STEM programs following their participation than others who did not participate (Tomasko et al., 2016). This also holds true for African-American, low-income, and other under-represented populations as a way to increase their academic success as well as to aid them in adjusting socially to higher education (Allen & Bir, 2012; Bir & Myrick, 2015; Garcia & Paz, 2009).

**Social.** It can be said that college transition programs are intended for remediation; however, within that remediation, there is integration with the life of the college. This can

include making connections with social networks, setting goals, and getting the academic year started in a positive manner (Stolle-McAllister, 2011). These programs also typically include academic and social support for the student such as tutoring, counseling, and mentoring (Venezia & Jaeger, 2013).

College transition programs routinely focus on student success skills as students may underestimate what is needed to be successful, especially if they are a first generation student (Douglas & Attewell, 2014). First generation students come from all lifestyles and are becoming a more significant group entering post-secondary education (Petty, 2014). These students can be at a disadvantage regarding knowledge and understanding of the process, procedures, and costs of post-secondary education (Ghazzawi & Jagannathan, 2011). Transition programs can be of help in their acclimation process.

These types of transition programs can run throughout the year, but many run during the summer before fall enrollment. They offer workshops or sessions on topics such as time management, study skills, note taking, networking, and appropriate interaction with peers to expose students to the soft skills many students are expected to have as post-secondary students (Slade et al., 2015). These are commonplace skills and abilities students will need in higher education (Tomasko et al., 2016). These skills and support networks help to create a solid foundation from which academic success can flow, leading to greater retention with at-risk populations (Cabrera et al., 2013; Raines, 2012). This leads to students being able to "build their social and cultural capital" (Stolle-McAllister, 2011, p. 13). This is especially true with programs offered at community colleges (Bir & Myrick, 2015), which are the focus of this study.

Post-secondary education institutions also use their transition programs as an acclimation and assimilation tool. In addition to success skills, institutions may aim to connect students to

knowledge and competencies around how to navigate financial aid, using a writing center, career services, and engaging with counselors. These skills are essential early on in a student's career, especially in their early semesters where they are susceptible to dropping out (Slade et al., 2015). These programs are used throughout higher education at both 2- and 4-year higher education institutions. They are designed to help students' transition to college both academically and socially (Wathington et al., 2016). The importance of academic and social integration of students must be consistent between the student's ability and the institution's intentions, otherwise retention is unlikely (Douglas & Attewell, 2014).

According to Lee and Barnes (2015), transition program success can be measured by student experience. While more subjective, this measure may link more closely to the student's ability to persist in their education. It is based on their overall connectedness to the institution. It was found that when comparing historically Black universities and predominately White post-secondary education institutions, transition program participants that make connections to the institution, regardless of type, demonstrate higher levels of academic and social engagement, both of which are variables linked to institutional retention and satisfaction.

**Target populations.** As retention and graduation rates have increasingly become a measure of success, post-secondary education institutions have become increasingly intentional about the students they select for enrollment in the college at large and in transition programs. "In most cases, though the selection mechanism may slightly differ, the students identified are those the institution believes need additional summer support for future retention" (Sablan, 2014, p. 1038). According to Lonn et al. (2015), summer bridge programs are one solution post-secondary education institutions have turned to address the retention issue and to aid their at-risk students. Colleges are also very interested in creating viable programs aimed at increasing

retention for groups of students with historically low graduation rates such as first-generation and low socio-economic status.

Most colleges and universities offer a variety of activities to connect new high school students to college. They come in the form of a welcome week or a new student orientation. With the increase of enrollment of under-represented students (e.g., race, ethnic minorities, and first-generation students), predominantly White post-secondary education institutions have begun to develop separate partner programs with the goal of improving the transition experience of the various student groups (Lee & Barnes, 2015). This allows students time to engage academically and to refine social skills before classes begin (Sablan, 2014; Stolle-McAllister, 2011).

***Ethnicity.*** The ethnic background of students can have an effect on their ability to successfully transition to college. The enrollment in post-secondary education of African-American students between the ages of 18 and 24 lags 25-30% behind White students (Strayhorn, 2011). Sixty-six percent of African-Americans who enroll in college are female, and of the males who enroll, 66% of them do not graduate. An even more concerning fact is that these graduation rates hold true regardless of institution or college (Bir & Myrick, 2015). So, while the number of African-American students attending post-secondary education is going up, they are less likely in general to complete a degree than White students (Lee & Barnes, 2015). It should be understood that this situation applies to all African-American students. Talented Black students who are excluded from social networks and who lack a cultural understanding of higher education will also have limited success (Stolle-McAllister, 2011).

The intended participants of a college transition program vary by institution depending on

the scope and nature of their program. Colleges and universities intentionally target particular populations of students as they attempt to close the gap between White students and students of color, specifically when focusing on STEM engineering and math majors (Stolle-McAllister, 2011). While the opportunities exist, minorities continue to be underrepresented in scientific and technical professions as well as the educational programs that prepare people for those professions (Murphy, Gaughan, Hume, & Moore, 2010). This is consistent with the fact that college transition programs are focusing on serving under-represented students because they have the greatest potential for attrition (Lee & Barnes, 2015).

***Adult learners.*** The path from secondary to post-secondary is not just limited to recent high school graduates. "Only one-third of adult education students with a documented goal to enroll in postsecondary education or training actually transition within an academic year period" (Zacharakis, Wang, Patterson, & Anderson, 2015, p. 7). The authors asserted that the challenge with retaining adult learners is in how to create supportive pathways for the adults to transition from secondary to post-secondary education.

***Underrepresented.*** The challenge of underpreparedness is exacerbated when combined with being part of an underrepresented population group. Being underrepresented refers to any group that is not part of the majority population (Minnesota State Colleges & Universities, 2015). This would include non-traditional gender in programs such as women in engineering or men in nursing. These students not only need assistance with preparedness but also with the social, emotional, and cultural aspects of higher education (Stolle-McAllister, 2011). The educational, social, and economic factors combined with underpreparedness create significant barriers that are difficult for some students to overcome (Slade et al., 2015).

Post-secondary education institutions will intentionally engage students before their enrollment in engineering and science such as chemistry through transition programs. One example is Ohio's Science and Engineering Talent Expansion Program (OSTEP), which is specifically focused on under-represented students who are not retained well in STEM majors (Tomasko et al., 2016). It has been noted that two key factors necessary to retain women and underrepresented minorities in engineering programs are intellectual engagement with the discipline and connectedness with other students in the program, the faculty, and industry professionals (Doerr et al., 2014). This is consistent with the overall concept of taking an approach that looks both at academics as well as acclimation and integration.

***Economically disadvantaged.*** The issue of addressing enrollment and retention is not only ethnicity related but is also intertwined with the needs of underrepresented populations that bear different socio-economic status. "Given existing financial aid and college funding policies, the current conversation has shifted to how higher education can facilitate matriculation for a larger population of lower income students" (Holtell, Martinez-Aleman, & Rowan-Kenyon, 2014, p. 34). "It can be argued that while college attendance stands at 80% for students from the middle and upper-middle-class, only 57% from the lower middle classes actually attend college" (Ghazzawi & Jagannathan, 2011, p. 123).

Students who come from lower socio-economic status likely do not understand the systems, processes, and practices typically associated with how to succeed in a higher education environment (Ghazzawi & Jagannathan, 2011). Unfortunately, there has been limited research on the experiences of inner-city students, many of whom are low-income people of color who have limited exposure to academic success (Strayhorn, 2011). Most studies have a focus that may include some form of early intervention, which includes both academic and social elements.

There is a movement to have programs become more comprehensive by focusing on bridging the gap between high schools and college (Slade et al., 2015). The author argued that a program, which is intentionally designed and implemented, can be a robust retention strategy.

The variety of program designs comes from the flexibility to focus on different mixes of academics, social aspects, or on a specific population of students. This affords post-secondary education institutions the opportunity to tailor their program to meet the specific needs of the institution. This variety also provides rich context from which institutions can explore other program options to address student underpreparedness and retention needs.

**Theory Underlying Evaluation of a Transition Program**

The foundational theory that underpins program design could be traced back through time to the work of Mead and Tinto. That is not the case with understanding theory related to program evaluation. Program evaluation has had a long and rich evolution, but there is no generally accepted philosophy of evaluation to which the entire field can be attributed (Fitzpatrick, Sanders, & Worthen, 2004). The authors claimed the establishment of worth and merit and the general definition of evaluation by using different approaches is responsible for the many and varied views of program evaluation.

Scriven (1996) said, “Evaluation is a very young discipline–although it is a very old practice” (p. 395). The journey that has brought program evaluation to the point of an established field of study began in 1792 with William Farish. Farish began using the quantitative mark to assess student performance, which allowed for objective ranking, aggregating, and averaging of scores (Hoskins, 1968). This is significant in that this was the initial step in the development of psychometrics (Madaus & O'Dyer, 1999).

The first formal evaluation in the United States took place in 1815. It was conducted by the United States Army when they developed a systematic process to ensure that ammunition from manufacturers was uniform (Smith, 1987). The process included policies on standard production processing to ensure conformity of materials, production, inspection, and product specifications from all suppliers (Hogan, 2007).

In 1845, Horace Mann commissioned the use of printed tests on various subjects to conduct a comprehensive assessment of student achievement in the Boston education system (Hogan, 2007). This is significant in that it began a long-standing practice of using student achievement scores as the primary source to evaluate a school or program (Stufflebeam, Madaus, & Kellaghan, 2000). According to the authors, the first formal evaluation of an educational program took place between 1887 and 1898 when Joseph Rice did a comparative study of spelling programs across several school districts.

Ralph Tyler conducted a study from 1932-1940 considering the outcomes of programs across 30 high schools (Hogan, 2007). Tyler noted that program objectives could be stated in terms that defined the end desired behaviors so that the course could be evaluated for instructional effectiveness (Tyler, 1975). This work essentially forms the basis of criterion-referenced testing (Hogan, 2007). Tyler's objective-based testing was advanced in the 1950s when the Taxonomy of Educational Objectives was published describing how objectives could be classified according to learner type (Reiser, 2001).

In 1958, Congress enacted The National Defense Education Act to invest in new educational programs focused on math, science, and foreign language (Stufflebeam, et al., 2000). This was largely in reaction to the Russians successful launch of Sputnik into space (Hogan,

2007). Congress established the funding so that this new curriculum would be evaluated, thus advancing federal funding in support of evaluation in education.

Contemporary program evaluation began with the passing of the Elementary and Secondary Education Act of 1965 (Hogan, 2007). This act was designed to support academic resources for low-income children and called for educators to evaluate their efforts (Ferguson, 2004). The act was intended to ensure that federal money would be used wisely and to help disadvantaged students in new ways (Weiss, 1998).

The latter third of the twentieth century saw evaluation emerge as a profession (Hogan, 2007). The recognized areas of evaluation were defined and included program, personnel, performance, policy, proposal, and product (Scriven, 1999). Professional journals focused on evaluation began to be published and universities began to offer coursework in evaluation methodology (Stufflebeam et al., 2000). In the 1990s, professional associations were developed such as the American Evaluation Association and evaluation standards (Hogan, 2007).

Today, program evaluation is an established trans-discipline field of study (Hogan, 2007). The modern evaluator working in the evaluation profession forms their evaluation viewpoint through the three dimensions of their philosophical and ideological beliefs, their methodological preferences, and their practical choices stemming from prior experience. These three dimensions are recognized as the key factors that form the individual's perspective on evaluation. This individual perspective informs how they view evaluation and can be used across a variety of evaluation areas (Fitzpatrick et al., 2004).

There have been a number of classification schemata that have been put forth to help organize the various evaluative approaches that are used across the different areas of evaluation (Fitzpatrick et al., 2004). A commonly recognized classification scheme organizes the

approaches into five main categories: object-oriented, management oriented, consumer-oriented, expertise oriented, and participant oriented (Worthen, Sanders, & Fitzpatrick, 1997). Table 2 reflects how each of these categories approaches evaluation with a different focus based on what is being evaluated.

Table 2

*Classification of Evaluation Approaches*

| Evaluation approach | Key characteristics of approach |
|---|---|
| Objective oriented | Used to determine if program goals and objectives have been met by focusing on the established goals and objectives of a program |
| Management oriented | Used to meet informational needs of managerial decision makers; intended to serve organizational leaders |
| Consumer oriented | Used by government agencies and consumer advocates that compile information to evaluate a product's effectiveness |
| Expertise oriented | Used to judge a program, activity, or institution using experts in the area being assessed |
| Participant oriented | Uses participants in the program throughout the evaluation to gather first-hand information |

When the three dimensions of philosophical and ideological beliefs, methodological preferences, and prior experience methodological preferences are brought together with the classification schemata, a more cohesive and comprehensive view of evaluation can be seen. This evolution and classification of the field took place across time and instead of finding a converging effect that drives the whole of the field together, the opposite has occurred. The divergent thought around how to approach evaluation has led to a field that is both significantly solid in its grounding, and significantly broad in its approaches (Fitzpatrick et al., 2004).

To understand this phenomenon, Alkin (2013) created an analogy to describe the current state of evaluation. The author described it as a tree with its roots comprised of social accountability, social inquiry, and epistemology, each a stable piece of the foundation for the tree, which is reflected in the historical evolution of the field. From these roots or philosophical underpinnings, branches have formed that flow upward, each with an evaluation focus consistent to the root.

The tree analogy is a model designed to give form to a complex mix of concepts and ideas. It is not a model for evaluation in and of itself, but instead represents a way to understand relationship and paradigms. It is through this model that current evaluative practices and approaches can be reviewed and considered. Within the tree and its branches, the individual dimensions and evaluative approaches form a three-dimensional structure for understanding the complimentary semifluid nature of evaluation as a whole despite its many and varied parts (Alkin, 2013).

**Transition Program Evaluation**

There are multiple ways to approach evaluation of transition programs and the domains of use, methods; and valuing is one way to organize these approaches. This is not to say that theorists cannot use other approaches and that they are limited to a single approach (Alkin, 2013). As Fitzpatrick et al. (2004) noted, theorists doing program evaluation will likely adhere to an approach consistent with their philosophical and ideological beliefs, their methodological preferences, and their practical choices stemming from prior experience.

While there are other schemata and classification models that could be considered or used to understand program evaluation, the work of Alkin (2013) served as the lens through which this study approached transition program evaluation. Alkin conceptualized program evaluation

into a workable construct with its foundations in social accountability, social inquiry, and epistemology. This foundation provides the needed support alignment for a variety of evaluative approaches that reside within three domains. These three domains focus on how the evaluation information will be used, the methods to gain the evaluative information, and the values that drive the evaluation process. Both the foundation and the approach work in concert with one another.

**Use.** Social accountability is the foundation that provides support for the use domain. Use refers to a line of thinking in evaluation that emphasizes a focus on how the evaluation information will be used and by whom. Social accountability can be described as being answerable or giving an account (Alkin, 2013). In evaluation, this comes in three forms: goal, process, and outcomes (Alkin 1972).

Goal accountability usually resides with a board or upper management in the determination of whether reasonable and appropriate goals have been set for the organization. Process accountability determines if processes and procedures have been put in place to accomplish organizational goals. Outcomes accountability considers to what level set goals have been achieved (Alkin, 2013). Table 3 lists the approaches commonly associated with social accountability and use evaluation approaches. Alkin noted that Stufflebeam and colleagues 1960s CIPP, which covers context, input, process, and product, finds frequent application in process accountability due to its orientation around process.

Table 3

*Social Accountability and Use Evaluation Approaches*

| Evaluation approach | Theorist | Description |
|---|---|---|
| CIPP evaluation | Stufflebeam | A systematic way of looking at the various components used in the development of a program |
| Utilization-focused | Patton | An approach that focuses on the usefulness of the evaluation to the intended users |
| Developmental | Patton | Makes use of meaningful data to evaluate programs in the midst of change and/or innovation |
| Empowerment | Fetterman | Outside evaluators function as coaches to guide the self-assessment process conducted by program stakeholders |
| Participatory | Cousins | Includes program personnel in the evaluation for buy-in and continued use of the program |
| Appreciative inquiry | Preskill | Recognizes past peak experiences to plan for future action |

Across each of the areas of goal, process, and outcomes, the end results of the evaluation are focused on the organization and its leadership, particularly around what the evaluation findings will do for them. This approach is pragmatic in nature because it focuses primarily on data that is found to be useful by stakeholders. The use or social accountability evaluation approach tends to advocate for the use of mixed methods (Mertens & Wilson, 2012).

An example of a study based in social accountability that uses the participatory approach of evaluation is a summer bridge program at College of the Canyons (Chandi, Goodman, Hernandez, Ingram, Kirst, & Tran, 2015). The College of the Canyons summer bridge is an 8-week program focused on academics, campus resources, and social development. The program is open to all first-time college students with additional marketing efforts placed on recruiting first-generation, low-income students from historically underrepresented backgrounds.

The assessment plan for the College of the Canyons summer bridge program has five pieces. They use student surveys focused on satisfaction and perception of obtaining student learning outcomes. There are student focus groups to understand how the program helps them to transition into fall semester and continuous improvement feedback, including faculty/staff reflection on their experiences with the program. The program includes specific course outcomes as part of the overall program assessment as well. Institutional data is used to capture retention, graduation, completion, transfers, time to graduation, and basic skills completion across. These are tracked for 3 years following participation in the program. Participants, both the students and the faculty/staff, are involved in the evaluation process. Their participation in the evaluation process provides qualitative information not readily available through the institutional data. This participation creates buy-in from the faculty and staff but also provides a positive connection for the students to invest in the program for future cycles (Chandi et al., 2015).

This particular example highlights a program evaluated through the use domain with an outcomes-based participatory evaluation process to determine program success. The program at the could very well have been evaluated using Stufflebeam's CIPP process, which together would also have gathered information necessary to evaluate the program's success. This demonstrates the idea Fitzpatrick et al. (2004) put forth that evaluators use philosophical and ideological beliefs, their methodological preferences, and their practical choices stemming from prior experience to decide how they will approach assessment.

In evaluating educational programs, process accountability best describes the process used by the Higher Learning Commission (HLC) to evaluate post-secondary education institutions for the purpose of validating their accreditation (Alkin, 2013). As the HLC reviews

an institution, it reviews the evidence provided by the college to determine the success of their programming (Higher Learning Commission, 2017).

**Methods.** Methodology and methodological approaches is the focus of the domain aligned with social inquiry. This domain is best understood as studying how people behave in groups across various social settings. The aim is to answer the larger question of why people do what they do when in groups. Overall, the largest volume of research that is conducted generally comes from the methods domain (Alkin, 2013).

The social inquiry area was originally mostly narrative in nature, which considers the questions of things, but over the years it has become more empirically driven (Alkin, 2013). This can be seen in its evolutionary process as the discipline of psychology introduced the experimental method to determine at what level a treatment will bring about desired outcomes. The evolution was also moved along when anthropology introduced ethnographies and thick descriptions to form a broader qualitative study (Alkin, 2013).

Social inquiry includes broad philosophical and methodological perspectives. It is post-positivistic in nature and tends to focus primarily on quantitative design; data can include qualitative or mixed methods with the use of ethnographies (Mertens & Wilson, 2012). Table 4 list the approaches commonly associated with social inquiry and the methods evaluation approach (Alkin, 2013).

Table 4

*Social Inquiry and Method Evaluation Approaches*

| Evaluation approach | Theorist | Description |
|---|---|---|
| Theory-driven | Ross & Chen | Uses a program theory developed to drive the evaluation process and addresses internal and external validity |
| Experimental & quasi-experimental | Campbell, Cronback & Cook | Uses an intervention or treatment for comparison; randomization defines a true experiment and non-randomization a quasi-experiment |
| Emergent realist | Henry & Mark | Focuses on social betterment rather than utilization as a rationale for evaluation |
| Objective oriented | Tyler | Validates to what extent program objectives have been met |

An example of a study using social inquiry was the study conducted by Wathington, et al. (2016) as they evaluated the Developmental Summer Bridge Program (DSBP) across eight colleges in Texas. These colleges all offered a variation of the summer bridge program and had common program outcomes of persistence, credit accumulation, and college-level course completion. The demographics across the eight programs were similar in that they were largely filled with recent high school graduates who were first generation students, most of whom were Hispanic females who came from families that would be considered low-income. The noted empirical strategy of the research team was to compare averages between the program and a control group to estimate the effect of the program on achieving its outcomes, a quasi-experimental approach for evaluation. The review of each individual outcome to assess whether they fulfill the goals and outcomes is consistent with the objective-oriented evaluation approach.

**Valuing.** The theory of knowledge or epistemology is the foundation for the valuing domain. The focus of the domain is on paradigms and how they frame the thinking used in assessment. Paradigms are a way of viewing the world. They are made up of methods,

assumptions, and values, which together create the framework of the paradigm. The three paradigms commonly used by theorists in their evaluation work are post-positivism, constructivism, and pragmatism (Alkin, 2013). The valuing domain is largely constructivist in nature in that its primary focus is on identifying the multiple values and perspectives using qualitative methods (Mertens & Wilson, 2012).

Post-positivism suggests that knowledge is incomplete and subject to individual opinions. When a researcher uses a post-positivistic approach, they acknowledge that both the researcher and those being researched have an effect on one another. This effect is what leads to potential bias in the individual opinions. The constructivist paradigm, which is based on observation, suggests that there is more than one possible reality that can exist based on each individual's belief systems on a particular topic (Alkin, 2013).

Pragmatism considers an idea based on the practical application of the idea itself. The successful application of an idea, regardless of the idea, provides validity to the idea itself. The use objective and subjective thinking as well as deductive and inductive logic set the framework for this paradigm (Alkin, 2013). Theorists can use any of these paradigms; however as noted earlier, some paradigms align themselves more closely with the evaluative approach of certain domains.

Mertens introduced a fourth paradigm, the transformative paradigm that has an emphasis on social justice (Mertens & Wilson, 2012). This paradigm has a focus on the ethics that relate to social justice and human rights (Alkin, 2013). As post-secondary education institutions consider college transition programs for underrepresented populations, this approach may add value to the discussion. Table 5 lists the approaches commonly associated with epistemology and valuing evaluation approaches.

Table 5

*Epistemological and Valuing Evaluation Approaches*

| Evaluation approach | Theorist | Description |
|---|---|---|
| Goal-Free | Scriven | Evaluator determines what objectives to be evaluated instead of the set program objectives |
| Cost analysis | Levin | Determining the value of a program or policy based on economics before and during implementation |
| Responsive | Stake | Believes there is no true value in anything, and stakeholders' perceptions are integral in the evaluation |
| Value-engaged | Greene | A democratic approach that determines program value through consensus around evaluated criteria |
| Fourth generation | Guba and Lincoln | Individual perception of reality constructs are brought into conjunction with one another |

An example of a study based in social accountability that used the value-engaged approach was the study conducted by McCurrie (2009) on the summer bridge program at Columbia College in Chicago. The underpinning emphasis from the college was student success. The 4-week summer bridge program focused on refining academic skills through coursework in reading, writing, and math. The study focused on two areas: first, the college's emphasis on success within the context of evaluating and revisioning the summer bridge program; and second, the concern that drove the study was regarding how the issues of race, class, and gender were examined when determining access to higher education and the use of a bridge program as tool for some to gain access.

McCurrie (2009) studied the perspective of administrators, faculty, and students, and brought their collective narrative together to form a basis of what success would look like for individuals. The author found that administrators want a cost-effective way to remediate students. The administration's measure of success was on cost and retention. Through the

revisioning process, it was learned that the faculty viewed success as advancing a student who would likely succeed in college not just be granted access by passing the class. Additionally, the students view success as their understanding of their own abilities to accomplish their goals at the college. McCurrie noted that each group's participation in the study provided a qualitative narrative that collectively resulted in a revised program.

This particular example highlights a program evaluated through the value domain using the value-engaged approach. The program at Columbia College could very well have been evaluated using another approach such as cost analysis based on the financial concerns present in the conversation. With the advent of Mertens (2012) transformative paradigm, future studies similar to McCurrie's (2009) study could also use the transformative paradigm, which is focused on social justice and human rights. This demonstrates the concept noted by Fitzpatrick et al. (2004) that evaluators use philosophical and ideological beliefs, their methodological preferences, and their practical choices stemming from prior experience to decide how they will approach assessment.

One area within the valuing domain that is growing is the goal-free approach. This approach starts with the evaluator deciding what to evaluate rather than the set program objectives. Youker and Ingraham (2013) provided the context for the epistemological approach of goal-free evaluation. They focus on how non-profit foundations are experiencing a shift in philanthropy toward a heavy goal oriented strategic philanthropy where foundations set their own goals to drive action rather than donor specified outcomes. The authors asserted that this shift has forced foundations to reconsider how they evaluate their success and is finding that goal-free evaluation (GFE) is a viable option.

GFE is not a new evaluation concept. It was introduced by Scriven (1996) and has been used successfully for many years (Youker & Ingraham, 2013). The application for foundations is that it provides a framework upon which an evaluation can be done when donors have not given adequate details, objectives, or outcomes for their gifts, according to Youker and Ingraham. As donors contribute funds to the college, if they are not noted for a specific cause, program, or initiative, the foundation itself may need to employ GFE to ensure that funds and their use are adequately reviewed. The authors declared that the creation of externally funded college transition programs may benefit from GFE if the funding is not a directive in nature.

An example of this comes from Michigan where a group of donors gave money in support of education in the Kalamazoo school district known as the Kalamazoo Promise. Essentially, the donors gave the money to fund the project but refused to define or determine the outcomes for their donations forcing the district to define outcomes. What resulted was the implementation of a goal-free evaluation process driven by the fact that there were no real established goals by which to evaluate the program (Youker & Ingraham, 2013).

The literature review on transition program evaluation highlights that evaluation approaches are founded in social accountability, social inquiry, and epistemology, and vary depending on the domain within which the evaluation takes place; namely, how the evaluation information will be used, the methods to gain the evaluative information, and the values that drive the evaluation process as a whole (Alkin, 2013). The review also noted that evaluators could use multiple approaches as was noted in the literature; however, they typically will use an approach consistent with their philosophical and ideological beliefs, their methodological preferences, and their practical choices stemming from prior experience. This combination of approach and function provided a paradigm to consider the programs in this study.

**Summary**

The goal of this study was to analyze the design the evaluation of summer bridge programs and how program design and evaluation theory are used to develop and assess college transition programs. The literature reviewed for this study included a review of the theories underlying the design and evaluation of transition programs. It also identified the design and evaluation practices and how they have been developed over time. Together the theories and practices identified through the literature review inform the framework and context from which this study was conducted.

The literature supports that colleges and universities are looking for ways to close the preparedness gap they see with incoming students and are using college transition programs as a tool to bridge that gap. The three key areas of program design are academics, social connectedness, and target populations. Each of these comes from theoretical underpinnings found in Mead's symbolic interactionism (as cited in Evans et al., 1998) and Tinto's interactionist theory (Tinto, 1975). These theories present the idea that individuals interact with and are effected by their surroundings. More specifically, that if those surroundings happen to be higher education, then how the student and the institution align in their perceptions of one another will have a large effect on the eventual success of the student.

The three factors of academics, social connectedness, and target populations that go into the design of a program vary based on each post-secondary education institution's perception of what they hope to accomplish with their program. This also may vary depending on how the institution needs to support and connect with the students to accomplish that goal. One institution may focus on the academics of underrepresented populations and build a program heavy on academic skills and student success resources to drive completion. Another may

choose to focus on student connectedness to the institution and student success resources for the same underrepresented population with the intention of increasing study body diversity and retention. Both are valid programs, and each has an emphasis that drives an institutional goal. Unlike program design, program evaluation does not point to a clearly defined theoretical pathway. Instead, program evaluation has gone through an evolutionary process that has diversified both the thought process and the application of assessing a program.

The three key thought streams that form the foundation of program evaluation come from social accountability, social inquiry, and epistemology. In turn, each of these aligns with a domain of approaches. These approaches are use, method, and valuing. This combined framework informs how evaluation is approached by the researcher and what role those involved in the program play in the evaluation process.

The design and evaluation of a college transition program are both connected and independent functions. They are separate in that the thought processes and theories that define them come from different sources. They are connected in that assessment of outcomes informs the validity of the design from the results achieved. This is much like how a hand and glove fit together bringing form and function together with intention.

## Chapter III: Method and Procedures

Community colleges, as open access institutions, are finding that an increasing number of students who enroll in the college are underprepared and in need of additional support to be successful. To address this, colleges are adding summer bridge programs that increase academic preparedness and social acclimation to the college for targeted populations with the intention that the students will be retained and complete their education.

This study explored the design and evaluation of summer bridge programs at three community colleges within the Minnesota State system. Understanding how program design and evaluation theory are used to develop and assess summer bridge programs, and by comparing the intended outcomes with the actual outcomes, this study has provided information that can be used to further evaluate them as a strategy for retention and completion.

The following are the research questions used to frame this study:

1. What methodology was used to develop the program design to accomplish the determined goals and outcomes of the summer bridge programs at three community colleges within the Minnesota State system?
2. What evaluation framework or approach is being used to determine the success of the summer bridge programs at three community colleges in the Minnesota State system?
3. What evidence is present to indicate the stated goals and outcomes are being met within the summer bridge programs at three community colleges within the Minnesota State system?

This chapter outlines how the study was framed to answer each of the research questions. It covers design methodology, sampling, data collection and analysis, and the limitations that define the research process.

## Research Design

This study analyzed summer bridge programs from three community colleges within the Minnesota State systems. A case study methodology was chosen because it provided an in-depth review of summer bridge programs. The benefit of using a multiple case study approach was that the research could show different aspects of the issue across the various cases (Creswell, 2013). The research format followed a multiple-case studies format, which is similar in essence and characterization to that of a collective case study (Yin, 2003).

The multiple case-studies format was chosen because the multiple case or collective case study model focuses on one issue or concern but then uses several case studies to portray the issue (Creswell, 2013). Multiple case studies look at the predictability of replication or forecast contrasting results for predictable reasons (Baxter & Jack, 2008). This study looked at the issue of design and evaluation of summer bridge programs and reviewed programs based on these specific parameters.

## Subject Selection and Description

Summer bridge programs hosted at three community colleges within the Minnesota State system were chosen for this study. Their selection was primarily determined by the population size of the communities where each college resides. The first summer bridge program was selected because the host college is a multi-campus college in rural Minnesota. The program is also a unique program in that it was developed by the college and is funded by local industry.

The second program selected was a TRiO Upward Bound program. It is hosted by a community college in a larger city located in rural Minnesota. The size of the community and the demographics it hosts makes review of this summer bridge program important from a comparison standpoint.

The third summer bridge program selected was based on its urban location with greater diverse demographics and the larger size of the community. The three sample colleges were also selected based on the recommendations of prior research.

An earlier case study was performed at one of the colleges as part of a dissertation to understand the needs of summer bridge program participants. The recommendations for further study included the need for more geographic locations with an emphasis on the need to include an urban location. The selected programs and colleges addressed these recommendations.

**Instrumentation**

This case study utilized a structured interview as part of the data collection process to gain information about each institution's summer bridge program. The 1-hour, semi-structured interview with each summer bridge program director followed the interview protocol listed in Appendix A. The purpose of the interview was to gain institutional information not readily available in a public format. The questions posed in the interview helped to gain insight into the design and evaluation of the summer bridge program and provided markers that could be compared with website review information and institutional data. Data logs were also used to record information and where it was found during the website review and public collection process.

**Data Collection Procedures**

Data collection took place in three stages consistent with the plan for the case study: public information review, semi-structured interview, and review of institutional data. The first stage consisted of the college website and public information review. An in-depth review of each college's website was conducted to gain information about their summer bridge program. The review was focused on identifying the design and evaluation elements of the program. This

included any stated purpose or focus as well as understanding the structure, format, application process, activities, goals, and perceived outcomes for the program. The review also included requesting program charter documents; grant applications, and evaluation reports that were public information. The information found during the first stage was documented in a resource log. The log contains a list of the sites visited and documents reviewed with a brief description of the information that was found. The resource log is located in Appendix B.

The second stage of the data collection process was the semi-structured interviews of the summer bridge program directors. The director of each program was contacted by phone, invited to participate in the study, and scheduled to be interviewed. The script used is noted in Appendix C. Additional program related information was requested during the initial call. A follow-up email was sent to confirm the scheduled face-to-face interview at each program director's campus. Appendix D shows this email template. These recorded in-person interviews were conducted to gain further information on the design elements and evaluation process used by each college for their summer bridge program. The questions attempted to gain both further information about the programs and also to validate the information found earlier in the public information review. The protocol for these interviews is noted in Appendix A.

Once the post-secondary education institutions were selected, approval to conduct interviews with the program directors was completed for each community college. All of the institutions recognized the University of Wisconsin-Stout's IRB approval as sufficient approval. None of the institutions had a formal IRB process requiring additional approval outside that of permission to proceed from senior administration. Each director signed a consent form (see Appendix E) before the start of the face-to-face interview.

Following the interviews, Rev Transcription transcribed the voice file. The completed transcriptions were then emailed to interviewees and verified for accuracy as shown in Appendix F. Following the accuracy check, the transcriptions were coded using Dedoose software. Once the transcription and coding process were completed, a review of data took place. Comparisons were made with the public information collected looking for similarities and differences with these data sets.

Stage three consisted of a review of the institutional data for each summer bridge program. The Office of Institutional Research at each college was asked to pull a minimum of 5 years of data from ISRS. Using system generated Tech IDs protected the student data. These IDs were used as identifiers for the students. Likewise, each program cohort had generic institutionally assigned cohort codes that could track and identify each cohort.

The information collected from the public review and the interview with the program director informed the type of institutional data to be collected. The actual data differed based on how the various programs were designed and what they used for evaluation methods, goals, and specific outcomes. Within the State of Minnesota, all student data is stored in ISRS by institution. For example, participation and completion data could be retrieved from the Persistence and Completion tables as well as the Enrollment Dashboard. These tables reside in Operational/EPMI11 and with a cohort code. Longitudinal data by summer bridge program could be pulled for each institution. Likewise, if needed, to validate program success measures, demographic data is stored by student and can be pulled by cohort. Tech ID associated the data for data integrity as well as for individual data privacy. ISRS contained the necessary data to validate the success measures identified in the first two stages of the case study. If the program

did not have the data stored in ISRS, attempts were made to retrieve it from the programs directly.

**Data Analysis**

Data analysis followed each stage of the case study and at the end for cumulative review of information. In each stage, data was reviewed to answer the research questions. The information gathered in the public information review was categorized into areas that supported understanding of how program and evaluation theory drove the design features, evaluation processes, and success measures of the programs. A cross-comparison between all three programs was conducted looking for similarities and differences regarding these areas. Consistent themes and methodologies were noted and served as a guide in the next steps of the data analysis process.

The transcribed and coded data collected during the interviews was compared to the public information review collected for each respective school. This was done to validate that what was being portrayed in the public information matched what the institution was actually doing with design features, the evaluation process, and success measures. A cross-comparison between all three programs was conducted looking for similarities and differences in these areas. Consistent themes and methodologies were noted and served as a guide in the next steps of the data analysis process.

Lastly, there was a review of institutional data associated with each program. The review compared data that supported stated outcomes and goals with actual results. The data sets varied by program based on what was discovered in the first two stages of data collection and what was available from the program. When similar sets of data were found, they were compared between programs. The data analysis summary included the noted design features, the evaluation process,

and measures of success, association to theory, common themes, and unique differences across programs.

**Limitations**

The limitations that come with a case study include a narrow and specific context. This led to a limited ability to broadly generalize findings. The data found on the web was not current or relevant, as some pages still existed despite web clean up efforts by the college. There was a possible limitation in that the interviewer could have influenced the participants creating bias in their answers; however, sending the participant the questions in advance so that they had time to consider and prepare their responses without interviewer interference mitigated this. Additionally, there was the possibility of inconsistent data sets based on how the community colleges created cohorts for their summer bridge program participants and how they stored and compiled data.

## Chapter IV: Presentation of Findings

The purpose of this study was to explore the design and evaluation of summer bridge programs, a specific type of college transition program, at three community colleges within the Minnesota State system. Understanding how program design and evaluation theory were used to develop and assess summer bridge programs and comparing the intended outcomes with the actual outcomes, provided information that could be used to further evaluate them as a strategy for retention and completion. This study was designed to answer the following research questions:

1. What methodology was used to develop the program design to accomplish the determined goals and outcomes of the summer bridge programs at three community colleges within the Minnesota State system?
2. What evaluation framework or approach was used to determine the success of the summer bridge programs at three community colleges in the Minnesota State system?
3. What evidence is present to indicate the stated goals and outcomes were met within the summer bridge programs at three community colleges within the Minnesota State system?

The data for this study was collected in three phases. First, through website and public data review, which included information requested at the time program directors agreed to participate; second, an interview with each program director; and third, a review of institutional data associated with the program. Each of these steps happened consecutively so that insight could be gathered between layers of information.

This chapter provides the context of programs being studied by describing the demographics of the post-secondary education institutions followed by the research information gathered through the three-tier data collection process.

**Demographics**

Three community colleges within the Minnesota State system were chosen to participate in this study. Each of the community colleges was geographically located in different settings that allowed for clear distinction between programs. The colleges were selected in part by their host location population, but also because they had been identified as having a summer bridge program. Table 6 illustrates the size of each college, the mix of its student base, and the relative population of their service area.

Table 6

*Sample Community Colleges' Demographic Data*

| | Community College A | Community College B | Community College C |
|---|---|---|---|
| Total number of students served | 4,260 | 7,978 | 9,600 |
| Full-time students | 39% | 47% | 39% |
| Part-time students | 60% | 52% | 60% |
| Percent female | 56% | 61% | 55% |
| Percent male | 43% | 38% | 45% |
| Percentage of minority students | 18% | 22% | 60% |
| Region | Rural city | Rural large city | Urban city |
| Population | 50,000+ | 100,000+ | 250,000+ |

Through the research process, it was found that Community College B had a second summer bridge program. This program partnered directly with the high schools in the public school district to offer a uniquely funded summer bridge program focused on student success. This program was included in the study, and for identification purposes it was noted as program B, while the TRiO program at the same institution is noted as B2. The naming nomenclature for both college and director followed this format.

The scope of these three colleges was very similar in that all were both community and technical colleges. The participant directors were all long-term Minnesota State employees with an average employment of 22 years. All of the participant program directors were involved in the creation of their respective summer bridge program.

The variation between colleges was largely found in the size of community in which they resided and the mix of students, particularly regarding minority students. This difference was noteworthy in that the location with the highest percent of minority students offers their summer bridge program regardless of ethnicity, whereas other colleges largely focus their programs on underrepresented populations.

**Bridge Program Profiles**

Because the three community colleges selected to participate in the study were all in Minnesota State system, it provided a level of consistency when approaching the institution. However, each college is unique in its own right regarding how they established a summer bridge program.

The summer bridge program at Community College A was started in 2007 as part of a Minnesota State system grant initiative to promote excellence in student learning. The goal of the grant was to increase access for minority students enrolling in higher education. In 2007,

there were changing demographics in the region with an increase in minority populations. At the same time, it was also recognized that there was a much lower percentage of students from minority backgrounds enrolling in the college. The summer bridge program exists to provide greater access to underrepresented students.

The participants selected for the program go through three layers of consideration: their age segment, level of academic preparedness in English and math as demonstrated by their Accuplacer scores, and alignment with underrepresented population criteria. The age requirement requires applicants to be between the ages of 16 and 22. Past participants included active high schools students, high school graduates, and those who did not complete high school and left secondary education. The Accuplacer scores to be eligible for the program need to place within a range below college ready but above adult basic education levels. This range is typically considered Level 1 and Level 2 developmental classes within the Minnesota State system.

Applicants must meet at least one of the following criteria as an underrepresented student: a first generation college student, defined as neither parent having received a 4-year bachelor's degree; experiencing economic barriers defined as having an income level that would meet eligibility for free or reduced lunches in public schools or having Pell eligibility; or a member of a racial or ethnic minority defined as identifying with a particular population such as Hispanic or Latino, Black or African-American, Asian American, or American Indian. The selection process uses a point system based on these three criteria with enrollment limited to a maximum of 24 students each summer. The program brochure and application are available on the college's website. Table 7 reflects the participants' demographic criteria.

Table 7

*Cumulative Participant Demographic Criteria*

| Criteria | Percentage |
|---|---|
| Not academically prepared for college coursework | 100% |
| First generation students | 100% |
| Faced economic barriers | 100% |
| Speak English as their second language | 95% |
| Have two or more barriers to success in college | 100% |

This summer bridge program takes place across 8 weeks with programming between 8:30am and 3:30pm, Monday through Thursday. This time is filled with a mix of academic classes, seminars, and actvities. Some of the seminars and activities include intrusive advising, mandatory time with a tutor assigned to each course, attendance of sessions on financial literacy, financial aid, leadership development, study skills, time management, and career exploration. There are also activities that help to build social engagement and networking within the cohort. Prior cohorts have also taken participants for an overnight visit to a university in the region for further exposure to post-secondary higher education. The program is free for students to attend; however, there are fees for some field trips.

The program's academic courses in English and math are taught by the college faculty. Which faculty member teaches these summer courses is determined within the collective bargaining agreement between faculty and administration. Faculty can claim summer classes based on seniority. The list rotates each year with the top person dropping to the bottom of the list. This allows for a fair and consistant way to assign summer courses. These courses are

credit-based and can be co-mingled with other students who are not part of the summer bridge program but need the development coursework to improve their academic standing.

The summer bridge program was originally started using funding received from an equity and inclusion grant in the amount of $88,000. The system grant funding ended and support for the program as of 2017 came from corporate donations, foundation funds, and the Minnesota Department of Education. The current cost to operate the program is estimated to be at or above the original grant amount. These costs include materials, instruction, advising, and activities. Food for the program is typically donated by local vendors.

For Community College B, during the data collection process, it was found that there are actually two summer bridge programs. The college website noted information on a summer bridge program as part of TRiO, but did not have any information regarding the other summer bridge program. There was one news article referencing the director of the summer bridge program; however it wasn't clear that they were leading a second summer bridge program. When setting up the director interviews, it was learned that the director noted in the article was the leader of a summer bridge program completely separate from the TRiO program.

The summer bridge program managed by Director B at Community College B began as an institutionally developed program. It started in 2004 when the college began doing direct contracts for Post Secondary Enrollment Option (PSEO). At the same time, the local college recognized a growing number of students who were coming to the college underprepared.

This program services the recently graduated high school seniors from all of the high schools within the community's public school district. The main goal of the program is to work with students who are not college ready based on Accuplacer score. The program also has a focus to help improve students skills in reading, writing, and math to a college ready level and to

help them become comfortable and connected with the college by the end of the summer bridge program.

The college has developed a partnership with the public school district to create two key features that provide a solid foundation for the summer bridge program. First, the community college pays for and provides college transition advisors (CTAs) at each of the public high schools in the district. These CTAs are in each school one day a week, all day long, all year round. Their role is to support seniors who are looking to go to college. They are not recruiters for any college, but instead assist seniors who want to go to any college. They assist with Accuplacer testing as well as college and career planning as an extension of the school district counselor services. It is estimated that 85% of the students that the CTAs work with attend the local community college that sponsors the CTAs.

The students who participate in the summer bridge program are first identified as being eligible by the CTA in their high school. Students who score within Level 1 or Level 2 developmental ranges are eligible to participate. Through intrusive advising with the CTAs, students are encouraged to attend the summer bridge program. Any student who scores within the Level 1 or Level 2 range is eligible to participate in the program. While the program is open to all students, the majority of attendees come from underrepresented populations. Of those who participate in the program, 60% are Pell eligible students, and 80% receive some sort of finanical aid upon attending college.

The second key feature of the partnership is a unique funding process that provides funds to the college to run the summer bridge program with little or no cost to the college and is completely free for the participants. Director B and the public school district reviewed the funds each were receiving for PSEO. It was noted that some funds were going unused and being

returned to the Department of Education. Through a PSEO contract, they agreed to pool all of the funds together making sure each had enough funding to run their portion of PSEO. It was agreed that the remaining funds would be used for college preparation activities. The majority of the recaptured funds go to fund the summer bridge program and any extra funds are allocated to college prep programs as agreed upon by both Director B and the public school district.

The summer bridge program consists of two pathways, both lasting 8 weeks. The first consists of introduction to college reading, introduction to college writing, and a first year experience course on college success strategies. The second pathway includes elementry algebra and the first year experience course on college success strategies. Each pathway includes mandatory tutoring and student support as well as campus orientation activities. The courses are taught by college faculty who are paid according to the faculty contract out of the recaptured funds. These faculty follow the summer claiming rotation and must also be certified to teach the first year experience course. The faculty teach their respective core topic but then switch to teach the first year experience course so as to expose students to more people at the college, building broader relationships. Course sizes are kept to 21 for both reading and math, which also works to foster greater connections.

Despite the larger size of the community and the multiple high schools in the district, the enrollment in the summer bridge program has not needed to increase the number of sections based on the limited class size. It was noted by Director B that while the benefit of increased placement saves students money in the long term, many students would rather seek summer employment than attend the program. It is often the parents who attend the informational meetings who ultimately see the cost saving value of a free summer bridge program that saves students tuition on developmental courses they would not have to take during the academic year.

Building relationships and connections between the participants and the college is a core value of the program. The program is intentional at building ways to connect the students with the college. As already noted, they switch instructors for the first year experience, so students meet more faculty. They also include the CTA's in the summer bridge program as advisors since students already have an association with that person. Helping the participants become familiar with campus resources is also important. There are tours of the campus, the learning center, and the library. They are also connected with student services for financial aid and advising.

The summer bridge program costs approximately $60,000, all of which is funded by the recaptured funds. This includes the cost of instruction, text books, and activities. The program purchases the textbooks for the course and then reuses them for a number of years to keep the program cost down. The college does pay the cost of the CTA's who participate in the summer bridge program but who also fulfill a larger role to both the school district and the college.

The other summer bridge program at Community College B is a TRiO Upward Bound program. Community College B has several federally funded TRiO programs which they use to address the needs of their students both at the college and those that may come to the college. The TRiO Upward Bound program at Community College B was started in 1993. It was recognized at the time that students were leaving the public school district underprepared for college. There were low income levels in the region and low levels of post secondary education being attained. It was also noted that proficiency in science and reading was less among minority students with English as a second language and those from low-income households. TRiO Upward Bound provides tutoring, college and career planning, skill assessment, visits to regional colleges and universities, and both personal and cultural development.

The TRiO Upward Bound summer bridge program is a component of the broader TRiO Upward Bound Program. The TRiO Upward Bound summer bridge program is separate from the other summer bridge program at Community College B and has little overlap with that program regarding participants or staff. The TRiO summer bridge program provides students an opportunity to learn in a college environment, have access to college resources, help further career planning, learn study skills, and provide assistance with college paperwork involving applications, finanical aid, standardized test prep, and finding scholarships. The summer bridge program also includes a trip for further growth and learning.

The TRiO program services the high schools within the community's public school district for grades 9-12. The participant ages range from 13 to 19, but typically, students start the program after completing eighth grade. The program requires either low income and/or first generation status to participate. Low income is defined by households income levels (e.g., a family of four with a household income of $36,900 or less meets the income criteria). First generation is defined as having parents who do not have a a 4-year college degree. Diversity and ethnicity are not a selection criteria for the program, yet 81% are ethnically diverse students from a community population that is 80.7% non-Hispanic White. The application process requires a middle school transcript, three letters of recommendation, and parents' most recent federal income tax form. After materials are reviewed, finalists are interviewed along with their parents.

The TRiO Upward Bound program hosts approximately 60 students in grades 9-12. Two-thirds of the students come from a target segements of both low income and first generation. The remaining one-third are a mix of either low income or first generation only students. The TRiO Upward Bound summer bridge program is free to participants, most of whom have been enrolled in TRiO Upward Bound since ninth grade. The program guides

graduating seniors into a core class that they will need in their post-secondary education (e.g., math, English, science, history, etc.). The courses are standard courses offered by the college. Ninety percent of these students have tested as college ready based on the Accuplacer. The courses last for 5 weeks and start the week after public school ends so as to keep students engaged. These students also go through a first year experience course as part of the program. Rising sophmores and juniors take classes in courses that they need assistance in as they go into their next grade. Fridays of each week and the 6th week are trips for the students. Friday trips are to local and regional education venues, and the 6th week trip is a visit to a major institution. Universities visited in the past included Georgetown, Stanford, and NYU.

The total estimated cost of the TRiO Upward Bound program is approximately $278,000. This includes a full-time director and two full-time advisors. This funding also covers the TRiO Upward Bound summer bridge program which includes the faculty for the 6-week program at approximately $12,000 and course fees, travel, food, and activities for approximately $46,000, which totals approximately $58,000.

The summer bridge program at Community College C has been in place since 2014. The program was created to address the underprepared students enrolling in the college and bridge them to college level coursework. Community College C had been seeing a trend that 60% of students entering the college needed some amount of developmental education, 50% of those needed at least two levels of developmental education.

The college wanted to design a bridge program that used multiple measures that included both assessment and classwork for evaluation to help advance students through or to bypass developmental education levels. These multiple measures would allow for student advancement

based on students' skills and place them into coursework that more accurately matched their actual abilities.

The program is an academic opt-in program that is free to those who attend. Reading, math, and English are scheduled such that students could take all three courses over the summer or just the ones they need to improve their academic standing. Class size is limited to 25 students per subject, and additional sections can be added if needed. Students choose which subject courses to attend based on their Accuplacer scores. The courses are pass/fail and are recorded on their customized training transcript rather than their regular academic transcript.

As an open access college in an urban area, the college views the bridge program as a tool to help all students regardless of age, race, ethnicity, income level, or location of their high school. The participants match the demographics of the college at large with a higher average age of student coming from single parent minority families. Many are first generation students.

Director C noted that Community College C takes a holistic approach to participants in that beyond the coursework they also have an emphasis on student success. Incoming students have a mandatory meeting with an advisor who reviews their Accuplacer score and interviews them to understand the person's whole life needs. They are connected to the appropriate resources to address those needs as well as their educational needs. Students are enrolled in the appropriate course to meet their educational needs during the meeting. All of the courses also include activity on time management, career planning, and study strategies for college success.

Using the multiple measures approach, courses are viewed as bridges to move students forward in their skills. A pre- and post- Accuplacer score assess this. The faculty who teach the class have the latitude to advance a student based on observed performance. This is where classroom work and assessment can vary for individuals. The faculty also use what is called a

*grit assessment*. The grit assessment is a 12-question survey that allows participants to rate their own perception of progress. Combined, these multiple measures paint a picture of the student's ability and preparedness to advance in coursework.

The summer bridge program is funded by the college. The program and courses run through their customized training department in part so that the courses do not need to be transcripted work. The faculty are paid their regular hourly rate, but because they teach through customized training, it does not count toward their academic year load and is instead additional pay. This helps to provide quality faculty for the summer bridge program and does not take credit load capacity from faculty, so they can still fully contribute to the college's main coursework. The summary report noted that the total cost to the college to run the summer bridge program totaled under $10,000 per year.

**Research Questions 1: What Methodology was Used to Develop the Program Design to Accomplish the Determined Goals and Outcomes of the Summer Bridge Programs at Three Community Colleges within the Minnesota State System?**

Research Question 1 explored the method each college used to create their respective programs. The public information review and the director interviews were intended to better understand the process used to design the program in order to meet the intended outcomes program.

The program design process for the summer bridge program at Community College A began with the formation of a cross-functional team. This team was made up of internal and external stakeholders which included the Dean of Liberal Arts and Sciences, Perkins Coordinator, Assessment Coordinator, Director of Student Success, Director of Admissions, Dean of Student Affairs, and the Vice President of Academic and Student Affairs. The local

high school representatives on the team included the Student Success Coach and the Director of the Advancement Via Individual Determination (AVID) program. The public school district was included in the process because the program also has a focus on increasing the high school graduation rate.

Outside of the grant criteria, a specific process or model for program development was not used to develop this program. The team met to discuss how to assess needs and how to best address those needs. Additionally, the team gathered data and best practices from other programs in the region that were running bridge programs.

The process itself was facilitated through meetings, discussions, and the distribution of tasks and actions to be completed. The discussions continued until consensus was obtained on what the program would look like and how to convey that in the grant application. Additionally, a grant writing team made up of members of the larger team was created to develop the proposal based on the grant criteria and what they had learned about other bridge programs. The college considered the first year to be a pilot for the program.

A cross-functional team from within Community College B developed a summer bridge program. A specific process or model for program development was not used in the creation of this program. The program development was led by Director B who collaborated with faculty and staff to brainstorm the first program. Community College B also used a cross-functional team. This team was made up of advisors, developmental reading and English faculty, study skills faculty, and tutors. Together, the team reviewed best practices from other known sources and considered how to address specific areas related success measures associated with the Accuplacer test.

In 2004, PSEO by contract was just starting in the state of Minnesota. Director B reached out to the public school district to explore what possiblities this new functionality might afford them. Together they recognized that there was an opportunity to access unused funds. By way of a contract, both entities found they could fully fund their regular ongoing concurrent and PSEO education, so they agreed to pool the unused recaptured funds. Additionally, they agreed to fund the summer bridge program from this pool and to offset the cost of some of the high school career and technical education testing. This partnership with the school district created a unique joint funding stream of unused dollars that would have been previously returned to the Department of Education to be redistributed outside of the education arena.

The TRiO Upward Bound program at Communty College B was started through a TRiO grant application awarded in 1993. The grant application was coordinated by the Community College B staff, which included the director of the B2 program and members from the office of of Student Affairs. The TRiO grant application is a formal grant process with specific critieria that need to be met. The student success staff, through meetings and discussion, determined how each grant criteria would be met. The grant has been reauthorized several times, each time being updated by the college's TRiO program director and TRiO staff. Outside of defining how to meet the grant criteria, a specific process or model for program development was not used in the creation of this program.

Community College C created their summer bridge program using a cross-functional team. Reading faculty identified a need, which led to the design and development of the program. The current director of the program pulled together a team made up of reading faculty, student advisors, the Dean of Enrollment Management, and representatives from the Customized Training Department. The original bridge plan was based on a desire to utilize a multiple

measures approach to help students succeed rather than simply using the Accuplacer as the barometer of success for a student.

A specific process or model of program development was not used in the creation of this program. The program was crafted through a series of meetings and discussion by the team and a first version was piloted in 2014. That original version was focused solely on reading. To prepare for the second year, English faculty were added to the planning group as the program was expanded to include English. Then, in its third year, they added the math faculty as coursework was expanded to include this area as well.

The decision to add the additional areas was based in part on the college's recognition of student deficiencies in those areas and due to the initial success of the piloted reading program to help students' transition to college ready coursework. The reading pilot started with 25 students, each had tested into developmental English. By the end of the summer bridge program, 2 had tested out of developmental, and 18 more were moved up or placed in to a higher level of developmental coursework. This demonstrated that the summer bridge program helped 80% of the students enrolled to increase their English skills and advance through coursework.

There is a new initiative within the region as of 2017 that includes multiple colleges to create a uniform summer bridge program to service a larger population. This initiative is being driven by a private donation of $5 million dollars with $1 million to be made available to the consortium of participant colleges each year. This new initiative focuses on Level 2 developmental classes. Community College C is also working to modify its program to align with the consortium model and to find solutions for those students who need Level 1 developmental support. All of the individuals involved in the college's summer bridge program have also been involved with planning the region-wide bridge program.

Three of the four programs used a cross-functional team during the program design process. The directors of programs A, B, and C all described inviting stakeholders from across the campus to serve on the creation team. Program B2 included TRiO staff in the process which provided some additional input into the grant application.

The funding for these four programs is a key feature of their design. Half were created in response to grant funding. The other two used creative methods to either reduce the cost or make the program cost minimal to the college. The cost comparisons between programs A, B, and B2 are relatively close whereas program C is much less expensive to run. Program C is currently funded by the college; however, with the donor funded initiative happening in the region, college C may be able to further expand their program and reduce the costs to the college. The variation in cost between the first three programs and the last one is largely due to the cost of food and activities. Table 8 shows a comparison of costs and identifies funding sources. The other sources category includes foundations and the Minnesota Office of Higher Education.

Table 8

*Annual Program Cost and Funding Source*

| | Program cost | College | Grants | Other sources |
|---|---|---|---|---|
| Program A | $88,000 | | X | X |
| Program B | $60,000 | | | X |
| Program B2 | $58,000 | | X | |
| Program C | < $10,000 | X | | |

**Research Question 2: What Evaluation Framework or Approach is Being Used to Determine the Success of the Summer Bridge Programs at Three Community Colleges in the Minnesota State System?**

Research Question 2 explored the method each college used to evaluate the effectiveness of their respective programs. The director interviews included questions about the outcomes and success measures associated with the program, the evaluation process used, and the effect of the evaluation process on program design for future cohorts.

The evaluation process of the four programs is determined by a review of their evaluation criteria. While the evaluation process for each program differs, there is commonality in the criteria being evaluated. Figure 1 shows the evaluation criteria in common for all four programs as reported either from the director during the diretor interviews or from each college's annual program reports.

| Goal, objective, or outcome |
| --- |
| • Number of participants<br>• GPA (at the end of the bridge program)<br>• Completion of the program<br>• Accuplacer increase on pre-post testing<br>• Perception of participant on college readiness<br>• Evaluations from participants and faculty<br>• Persistance to next semester<br>• Retention through next semester |

*Figure 1.* Common evaluation criteria of all programs.

The summer bridge program at Community College A uses both quantitative and qualitative measures to evaluate the success of participants and the program as a whole, although no specific process or model of program evaluation was used to assess the program. The quantitative evaluation portion is completed by accessing available data. ISRS data is used to validate that participants achieved a 2.0 GPA or higher and completed at least two-thirds of the

credits registered for at the beginning of the summer session. Pre- and post- Accuplacer scores are compared for improvement. ISRS is also reviewed to track participant enrollment at the local college following the program. This corresponds to the program's defined outcomes of participation numbers, GPA at the completion of the bridge program, successful completion of bridge courses, and persistence in high school or enrollment in post-secondary education depending on their grade level.

The other outcomes of the program are qualitative in nature. These are largely in the form of artifacts that are produced during the program such as identifying their learning style and by creating an education and career plan. These plans are created and reviewed for actionability as part of the coursework. They are simply noted as completed as part of the program evaluation. The learning style is identified and noted.

The program seeks to evaluate the attainment of skills in leadership, college preparation skills, and the participants motivation for attending college. This is done through the use of participant surveys that are both short answer essay and Likert scale. These surveys, which are completed at the end of the summer bridge program, inquire how the participant feels they have grown through experiencing college life and the ability to access campus resources. Participants are also asked survey questions based on perceived increases in their confidence, leadership skills, motivation for attending college, and where they have become involved in their community.

The surveys collected from the participants of each cohort are reviewed by the summer bridge team and considered in the planning for the next year. While some questions use a Likert scale, there is no calculation done to assess the cohort's response to a specific question, nor is

there a formal comparison made between annual cohorts for a longitudinal tracking of student perceptions.

The program has an assigned advisor who coordinates it from year-to-year under the direction of a director. Together, these two manage the design and evaluation of the summer bridge program. The evaluation process follows an annual cycle of activity. The cycle includes preparation for participant selection, the program progress while in session, a team debrief of the how the program went following the completion of the program, and planning sessions for the next year. The cycle then repeats with the selection process.

The process begins with the participant selection process, which is managed through weekly team meetings. The preparations for the program are continued through weekly meetings following the selection of participants. Faculty, advisors, tutors, school district, and community partners are added in across the same timeframe. As the program progresses over the summer, there is ongoing communication with the faculty, advisors, and tutors regarding the participant's progress. This communication comes in the form of weekly team meetings led by the program advisor and director. Changes are made as needed to keep the cohort on track to achieve the intended outcomes.

After the program has concluded, the team is convened to conduct a debriefing on how it went. The aspects that went well and what did not work out as planned are captured in minutes so that they can be used during the planning sessions to make adjustments for the coming year. The planning sessions, which are attended by the program team, review the debriefing notes and the qualitative and quantitative assessments to make adjustments to achieve the intended outcomes of the program in future cohorts. This process is dialogic in nature with group consensus on action steps.

Since the program was created, a number of changes have taken place. These changes were all identified as areas that needed to be addressed in future cohorts. The changes have included which seminars to add, which field trips to take, how tutoring and advising are embedded in the program, and the type of courses offered. The director maintains the institutional knowledge of the changes that have been made over time about what has worked and what has not. Figure 2 lists the goals and outcomes associated with the program as reported on their annual progress report.

| Goals and objectives for evaluation |
| --- |
| • Number of participants who successfully completed of two-thirds of courses with a 2.0 GPA or higher<br>• Cohort average GPA at the end of the program<br>• Number of non-high school aged participants who plan to attend Community College A in the fall<br>• Number of high school aged participants returning to their high school after the program<br>• Number of high school aged participants who enrolled in at least one college level course in the semester following the program |

*Figure 2.* Program A goals and outcomes.

These goals are listed in the program brochure found on the college website. There are several additional identified outcomes or items used for evaluation of the summer bridge program that are also identified in the program brochure or by the director during the interview, but were not included in the annual report. These include surveys and observations from participants and staff, improved reading and math skills as defined by pre-and post-Accuplacer scores, an identified learning style, an established education and career plan, having had experienced college life and located campus resources, and to have had become involved in their

community. Together, both the items included on the annual report as well as the additional outcomes, define success for the college and the student.

The goal of summer bridge program at Community College B is to take recent high school graduates who score into developmental courses and help them increase their skills across summer to be college ready when they start in the fall. The college uses both quantitative and qualitative measures to evalute the success of participants and the program as a whole, although no specific process or model of program evaluation was used to assess the program. Program B does not have a formal annual report. Figure 3 shows the measures reported by the director as being used for the program's evaluation.

| Goals and objectives for evaluation |
| --- |
| • Participation numbers<br>• Grade point average at the end of the program<br>• Completion rate<br>• Persistence to fall semester<br>• Retention rates of program to fall, fall to spring, fall to fall<br>• Perception of participants readiness for college<br>• Math passing rates<br>• Pre- and post-Accuplacer scores |

*Figure 3.* Program B goals and objectives.

The quantitative review is completed by accessing available institutional data. ISRS data is used to validate students GPA and the completion and retention rates. Retention is measured across several segments: bridge program to fall, fall to spring, and fall to fall. These rates are compared to the community college as a whole for rates across the same periods. Pre- and post-Accuplacer scores are compared for skill improvement. The qualitative portion assessing the

student's perception of their readiness for college is measured through conversations with CTAs, tutors, faculty, and through student surveys using short answer and Likert scaling. While surveys with Likert scaling were used, neither a cumulative comparision of each questions response nor a longitudinal calculation across cohorts were captured.

The evaluation process takes place each year during summer bridge recap meetings. These meetings are held in October and include the director, advisors, faculty, tutors, and CTAs. The team reviews the numbers and feedback to consider how goals and success measures were met. They review the changes made from the prior year and consider their effect on the current year's performance. Then, after reviewing all of the data, suggestions are made for changes to the coming year. The proposed changes are coordinated by the director but acted upon by the group responsible for implementing the change (e.g., increased tutor time would be scheduled by the director and coordinated by the tutors). The director coordinates the planning for the next year based on the actions determined in this meeting. The cycle repeats itself following the next year.

The summer bridge program has had many changes across the time it has been active. Some of the changes include the courses taught, daily and weekly schedule, and where the 8-week session falls during the summer. Changes in the program for the next cycle have included adding additional time for more college study skills, focusing on soft skills, and doing more pre-advising. The changes made are either mentioned on a student survey or are identified by the team as needing to change to better serve the students and meet the goals of the summer bridge program.

The objectives of Summer Bridge Program B2 at Community College B, which is the TRiO Upward Bound program, assume and include a year round participation of students from

Grades 9-12. This includes the participation in the summer bridge program during the summer following the student's senior year. It is important to note that while TRiO Upward Bound has a summer bridge component, the summer bridge is not a stand alone entity like the other programs included in this study. It resembles that of a capstone experience for the entire program. As such, the goals of the program apply to the summer bridge in a general cumulative nature rather than in specific outcomes.

The overall program has three areas of focus: academic performance, secondary retention and completion, and post-secondary enrollment and completion. Table 9 reflects the objectives for TRiO Upward Bound as outlined in their 2017 grant renewal proposal. These items apply to the summer bridge component as well.

Table 9

*Program B2 Goals and Objectives*

| Goal | Objective |
|---|---|
| 80% of students served would achieve and maintain a grade point average of 2.5 or higher | At the end of each academic year of participation by their transcript. |
| 75% of seniors served will have achieved the proficient level on state assessments in reading and math | Measured based on scores on the Minnesota Comprehensive Assessment, Accuplacer, and ACT prep course. |
| 85% participants served will continue in school for the next academic year | Measured by semester grade reports and school transcripts. |
| 80% of participants will complete a rigorous program of study and graduate with a regular secondary diploma | measured by school transcript, semester grades, and attendance rosters |
| 75% of participants will enroll in post-secondary education the fall immediately following high school | Measured by the number of graduates in the summer bridge program, as well as those signed up for a finanical aid session, college applications processed, and campus visits. |
| 45% of those who enrolled following high school will attain an associates or bachelors degree within six years following graduation from high school | Tracked through ISRS and the national clearinghouse |

The process to evalute the success of the program has three components. The first phase is to evaluate how the program is making progress toward its objectives. The second phase is to evaluate the success of the students and program as a whole. The third phase involves the continually reviewing evaluations throughout the program to improve program performance. The data to evaluate the objectives is kept in an Access database maintained by the director of B2. Table 10 shows the evaluation plan specifically for the summer bridge program portion of the Upward Bound program.

Table 10

*TRiO Upward Bound Summer Bridge Program Evaluation Plan*

| Group | Evaluation type | Measure type | Measures |
|---|---|---|---|
| Summer program | Formative | Quantitative | Earned grades in students' summer classes |
| Summer program | Summative | Qualitative | Evaluations by students<br>Evaluations by summer teachers<br>Debriefing of permanent Upward Bound staff |

There are three specific measures for the summer bridge program. These are earned grades, the evaluations from students, and the evaluations from teachers. There is also a debriefing of TRiO Upward Bound staff however no defined outcomes are attached this measure. While there is a well defined evaluation plan that addresses each of the goals and outcome areas, no specific process or model of program evaluation is used outside of this plan to assess the program. Likewise, while evaluations are used, calculation of data for each evaluation survey question is not captured nor is it calculated across cohorts longitudinally for review.

The summer bridge portion of the TRiO Upward Bound program has made adjustments and modifications to the program based on the quantitative data sets as well as the qualitative evaluations of students and summer instructors. Some of the changes made within the scope of the grant include the addition of Friday field trips for experiential learning. The program also changes the location of the Week 6 university visit. Other changes include the summer daily schedule and the courses offered to the rising sophomores and juniors.

The summer bridge program at Community College C was created to address the underprepared students enrolling in the college and to bridge them to college level coursework.

The two key outcomes that reflect that program purpose are demonstrating that students move up through developmental course levels to be college ready and to demonstrate the cost savings to the student by advancing through the program. The college uses additional data, both quantitative and qualititative, to assess the program. There is no specific process or model of program evaluation used to assess the program. Figure 4 reflects the goals and objectives for the program either included on their annual report or as decribed by the director during the director interview.

| Goals and objectives for evaluation |
| --- |
| • Participation numbers<br>• Overall grade point average the semester following the program<br>• Number of students who moved up in developmental coursework<br>• Number of levels students moved up in developmental coursework<br>• Dollars saved by students avoiding developmental coursework<br>• Total cost to the college to provide the program |

*Figure 4.* Program C goals and objectives.

The cost savings to the student is calculated by multiplying the cost of developmental coursework they tested out of by the regular credit rate. The result is the savings realized by the student for increasing their skills while in the summer bridge program, thus avoiding unnecessary tuition costs. Student success, which also reflects program success, is accounted for through the multiple measures format and the future performance of the student. The multiple measures include pre- and post- Accuplacer scores, the pass/fail rate at 70% minimum level to pass, demonstrated college readiness by students based on punctuality, motivation, thoroughness, and professionalism. These criteria are considered collectively and help to determine if a student should be moved up to a different level of developmental coursework.

This portion of student success also includes the qualitative measures of student feedback on surveys and instructor impression and observation. While subjective in nature, these surveys provide a view into the student's perception of themselves and the program and their ability to succeed at college level coursework. The last section of student success, which measures the future performance of the student, is measured by reviewing the first semester coursework following the summer bridge program and the next level of development or college level coursework taken. It should be noted that there are no rubrics from which to evaluate the surveys or impressions. Likewise, while evaluations are used, calculation of data for each question is not captured nor is it calculated across cohorts for a longitudinal review.

Each year following the summer bridge program, the team is convened to review the project. The key outcomes and success measures are reviewed and an end of project report is completed. This report summarizes the annual data and captures suggested changes for the next year. The follow-up data to track student success is reviewed to check progress at the end of fall and spring semesters. All of the data is captured on a program spreadsheet.

The data collection process is a manual process. Student data is collected and entered into a standalone spreadsheet. While students are listed in ISRS as being enrolled in the college, there is not a defined cohort code to access participant data. This is also true for data used on the end of year reports.

The program has made several changes across the years, most notably in its expansion from just reading to include writing in its second year and then math in its third. There has been ongoing refining of the curriculum by the faculty to better integrate college success elements alongside the subject content. Additionally, the multiple measures process has been refined to focus on what elements drive the intended outcomes of the program.

The most significant change, currently being worked through as the metro-wide bridge, is being developed with private donor funding. This process will ensure standardized Accuplacer scores, standardized rubrics for assessment, standardized curriculum components, and standardized and automated metric reporting across the greater metropolitan consortium. The changes will also result in other changes at the individual college level to continue to support the lower levels of developmental education not covered by the new model.

The directors of program A, B, and C all described an end of the program meeting with their program faculty and staff to discuss how the summer program went. These teams reviewed the collected data, discussed the survey results, and considered what changes could be made for the coming year. The TRiO staff of program B2 conducted ongoing reviews of data and surveys during their weekly team meetings throughout the summer.

**Research Question 3: What Evidence is Present to Indicate the Stated Goals and Outcomes are Being Met within the Summer Bridge Programs at Three Community Colleges within the Minnesota State System?**

Research Question 3 sought to validate the information discovered during the public information review and the program director interviews. The data used to validate the information collected about the programs came from institutional data sources, program evaluation reports, and grant application documents.

The summer bridge program at Community College A uses a progress report compiled by the director for the current year and a cumulative report for the life of the program. These reports show the overall progress of participants. Since the program began in 2006, approximately 225 students have participated, including 95.5% minority students, most of which have been Hispanic at 77.5%. Participants have been 65.8% female coming from 18 regional

high schools with the majority coming from the main high school in the same community as the college. Approximately one-third of participants have been older than 18 with the rest being current high school students. Table 11 reflects the outcomes as reported by the program.

Table 11

*Indicators of Program Success*

| Success measure | 2016 | Cumulative |
|---|---|---|
| Program completion (2.0 GPA and completed 2/3 of registered work) | 94.7% | 92.0% |
| GPA of those completing the program | 3.65 | 3.04 |
| Non-high school aged participants enrolled in college post program | 100% | 89.3% |
| High school participants who returned to high school post program | 100% | 100% |
| High school participants enrolled in one college class while in high school | 18.2% | 31.7% |

Regarding the other success measures, the program does not have records of pre- and post- Accuplacer scores that could be reviewed. The successful completion of artifacts such as a defined learning style and having an education and career plan were implied but not reported, nor was how a participant has become engaged in their community. The participant's increased confidence and motivation to attend college is caputured in a summative narrative essay that each participant wrote as part of the defined coursework. The content of these essays is reviewed by the course faculty as well as the program advisors. This collection of essays forms

an anthology of the writing abilities of the participants but does not quantify level or skill attained.

The survey of participants regarding their experiences with the program and connectedness to the college have both short answer and Likert scaling. However, the surveys are distributed in hard copy format and the summative ratings of the Likert scale were not captured on a cohort level basis or in an ongoing longitudinal basis such that they could be reviewed

The reported results for program A suggest that the program is fulfulling its objectives. The goal for participants to complete the program with a 2.0 GPA has been surpassed as shown by their cumulative GPA of 3.04. The report also shows that all of the students returned to high school following the program and that 31.7% have taken at least one college class following graduation.

The summer bridge program B used both qualitative and quantitative data to measure the success of the program. Over the nine years that the program has existed, it has served 476 students. Table 12 reflects the levels of participant success in the programs noted goal areas.

Table 12

*Cumulative Metrics for Program B*

| Criteria | Measure |
|---|---|
| Average completion rate | 95.3% |
| Average GPA | 2.77 |
| 4-year passing rate for math | 81% |
| Non-participant math passing rate | 58% |

The retention rates, shown in Table 13, reflect higher retention rates than those experienced across the same time frames for Community College B overall.

Table 13

*Cumulative Student Retention: Summer Bridge Program versus College B Overall*

| | Summer bridge program to fall | Fall to spring | Fall to fall |
|---|---|---|---|
| Summer bridge program | 90.4% | 88.8% | 70% |
| Community College B overall | | 73% | 46% |

The feedback from students on surveys and through one on one conversations also revealed a high level of student satisfaction with the program and a positive perception of their skills and abilities to succeed in post-secondary education. This is evidenced by a 3-year average from 2009 through 2011 of 4.16 out of 5 on a Likert scale for the survey questions. This survey has not been used since and earlier data was not available for comparison.

The program does complete surveys for all of the individual classes; however, they stopped doing a separate overall summer bridge survey because the college was not learning any additional/new information from what they were learning in the individual course surveys. This happened in 2011 during the first summer they implemented the first year experience course to replace the study skills course.

Program B does report on all of their measured goals for the program; however, the data provided for program completion, GPA, a student's perception of college readiness, and pre- and post-Accuplacer test scores do not provide a context to know if the number is in fact successful. Two areas that do show movement toward success are retention and math pass rates. The results show that students from the program are retained at a higher rate than the overall college. The math pass rates also exceed those of non-participants by more than 20%.

The TRiO Upward Bound program (B2) at Community College B reported having 299 participants from 2011 through 2016. These totals also represent the participants in the summer bridge portion of the program. Table 14 reflects the cumulative averages of the program.

Table 14

*Program Success Metrics from 2004 to 2016*

| | Program goal | Program actual |
|---|---|---|
| GPA of 2.5 or higher | 80% | 90% |
| Proficient on state assessment | 75% | 89% |
| Persistence year-to-year | 85% | 100% |
| Graduation and completion | 80% | 98% |
| Enrolled by fall after graduation | 75% | 89% |
| 2- or 4-year degree within six years | 45% | 59% |

The survey of participants regarding their experiences with the program and connectedness to the college have both short answer essay and Likert scaling. However, the surveys are distributed in hard copy format, and the summative ratings of the Likert scale were not captured on a cohort level basis or a ongoing longitudinal basis such that they could be reviewed via a summary. The website for Community College B highlights a summary of success measurements associated with program B2. The director of B2 noted that many of those attending college do so at a Minnesota State college or university. Table 15 reflects a profile of the graduates from 2007-2011.

Table 15

*Success Measurements for Community College B2*

| Criteria | Measure |
|---|---|
| Completed the program 2007-2011 | 97 |
| Attended at least one semester of college | 99% |
| Graduated from a 2-year college | 16% |
| Graduated from a 4-year college | 30% |
| Gone on to earn a master's degree | 2% |
| Still pursuing a college degree | 3% |

The summer bridge program is part of the broader TRiO Upward Bound program. The data reported for program B2 for success metrics shows the overall program goals versus actuals for each item. This comparsion reflects that all items are exceeding the stated goal and suggest the overall TRiO Upward Bound program is successful.

There are other success measurements provided by the college that reflect the success of program graduates. These are reported as cumulative numbers without context to gauge their perceived success. The goals specifically associated with the summer bridge program included surveys from participants and staff. However, the survey results were not calculated to produce a quantifiable result, so there is no context from which to gauge their success.

Community College C reported a total of 40 students who have particitpated in the summer bridge program. This is the total number of participants in the first 2 years of the program, noting that the first year was also a pilot. The students could enroll in multiple summer bridge courses depending on their specific need. Table 16 represents a cumulative looks at the first 2 years of the program. The data for the third year of the program was not available at the time of this study.

Table 16

*Cumulative Key Outcomes for Community College C*

| Criteria | Measure |
|---|---|
| Moved up out of developmental coursework | 5% |
| Moved up to higher developmental coursework | 67.5% |
| Total cost savings for all students for coursework avoided | $38,858 |

The pre- and post-Accuplacer retesting was highlighted in the summer progress report. The cumulative results for the first 2 years showed that out of 38 participants, 52.6% increased from pre- to post-testing, 21% increased to a higher level of developmental coursework, and 2.6% tested up into college ready coursework.

The students were given surveys at the end of the program. The themes across the first 2 years included an appreciation for the time management session and personal scheduling in college session. Comments included by students suggested adding a math and writing program, which were included in the decision to expand the summer bridge program in years two and three to include those topics.

Faculty impressions and observations included their surprise at how participants did not understand the difference in expectations from high school to college regarding self-motivation and homework completion. They also expressed positive support for the high-touch advising built into the process and the use of multiple measures for placement.

The costs to the college was reported for each cycle. Costs were broken down into three categories of textbooks and supplies, development and preparation costs, and faculty. The actual cost for each of the first 2 years was $2,450 and $7,240 respectively. The second year also

included $3,000 for customized training department costs, which is why it was significantly more than the prior year.

The reported goals for program C suggested that the program is fulfulling its objectives. The number of participants moved up to higher levels of development coursework shows 67%, which means more than two-thirds advanced. However, the goals noted for the program do not have a baseline from which to compare results either within the same year or between years.

## Chapter V: Discussion, Conclusions, and Recommendations

Colleges and universities are implementing college transition programs as a model to increase the academic preparedness and social acclimation of students with the intention that they will be retained and complete their education (Raines, 2012). However, the design and evaluation of these programs is varied and diverse (Lonn et al., 2015).

The purpose of this study was to explore the design and evaluation of summer bridge programs, a specific type of college transition program, at three community colleges within the Minnesota State system. This study was designed to answer the following questions:

1. What methodology was used to develop the program design to accomplish the determined goals and outcomes of the summer bridge programs at three community colleges within the Minnesota State system?
2. What evaluation framework or approach is being used to determine the success of the summer bridge programs at three community colleges in the Minnesota State system?
3. What evidence is present to indicate the stated goals and outcomes are being met within the summer bridge programs at three community colleges within the Minnesota State system?

Understanding how program design and evaluation theory are used to develop and assess summer bridge programs and comparing the intended outcomes with the actual outcomes provides information that can be used to further evaluate them as a strategy for retention and completion.

To answer the research questions, a multi-case case study approach was used collecting both quantitative and qualitative data. The research was conducted in three consecutive phases where data was collected by institution and analyzed by each case study program. Phase one

included a review of the public information on each program. This data came from websites, grant applications, and annual reports. Attention was focused on the design and evaluation of each program. Pertinent data was captured on a public information log.

Phase two of the study involved structured interviews of the directors of each of the programs. An interview protocol was used for consistent questioning. The interviews were used to provide context to what was found in the public information search and to gather the qualitative data associated with the process to design and evaluate each summer bridge program.

The third and final phase of the study was to retrieve institutional data from each community college to validate and support both what the public information search showed and what the directors described in their interviews. This data came from institutional databases, annual program reports, and annual grant reporting data.

This chapter provides a summary of the research, conclusions from the findings, and recommendations.

**Discussion of Findings**

This study of three colleges in the Minnesota State system using a summer bridge program to increase student preparedness and retention revealed that intuitive design rather than methodology was used to create these programs. Likewise, the program evaluation process is largely intuitive and based on quantitative data around student and program coursework success. However, there is also a fair amount of subjective assessment around perceived achievements with limited qualification. While the success of these bridge programs can be seen at varying levels in the data, the processes necessary to recreate that success using methodologies or strategies is not evident in practice, but well documented in the literature.

**Research question 1: What methodology was used to develop the program design to accomplish the determined goals and outcomes of the summer bridge programs at three community colleges within the Minnesota State system?** Research Question 1 explored the method each college used to create their respective programs. The public information review and the director interviews were intended to better understand the process used to design the program to meet the intended outcomes of the program.

The four programs each possess design features consistent with the three categories of program types as noted by Fowler and Luna (2009). Table 17 compares the four programs by feature across the categories presented by Fowler and Luna.

Table 17

*Program Design Features by Summer Bridge Program*

| Fowler & Luna Categories | A | B | B2 | C |
|---|---|---|---|---|
| Target student | Middle to low achieving | Middle to low achieving | Middle to low achieving | Middle to low achieving |
| Location | College | College | College | College |
| Student mix | High school only | High school only | High school only | High school mixed with college |
| Instructor | High school and college | College | College | College |
| Course content | Special curriculum | Special curriculum | Special curriculum | Special curriculum |
| | College curriculum | College curriculum | College curriculum | College curriculum |
| Credits earned | Course-based | Course-based | Course-based | Not on academic transcript |
| Degree of intensity | High – Address social, behavioral, and academic needs | High – Address social, behavioral, and academic needs | High – Address social, behavioral, and academic needs | High – Address social, behavioral, and academic needs |

The four summer bridge programs generally all fit within the Enhanced Comprehensive category and reflect the characteristics associated with that type of program. However, there are some nuances within the four programs such as the program at Community College A includes students that are still in high school and the program at Community College C includes anyone enrolling who needs additional support. The program at Community College A also includes the local school district staff as part of the program, whereas all other programs use college faculty and staff.

Each of the four summer bridge programs includes elements that focus on the remediation of academics as well as the social integration with the college. This is consistent with what is described by Tinto (1975) in the interactionist theory. Students need both academic support and social integration elements to be successful. The inclusion of both reflects an intentional design approach centered on students' success.

The academic portion included in the design of these programs is consistent in that all provide reading, math, and English as the core courses offered. Some variation can be seen in that the program at Community College C is open to anyone needing the courses and uses an opt-in enrollment strategy. Program B at Community College B offers the sections at different times so students can take them, but they have to be admitted to the program first. The program at Community College A and the B2 program at Community College B both include all of the courses in a package that is part of the summer program.

Community College C runs their program through customized training. The courses are all credit based but are assigned zero credits. This is beneficial in that it does not count the student's developmental coursework as part of their cumulative grade-point average on their academic transcript and also does not affect financial aid. The courses are noted on their customized training transcript and have a specific course identifier that follows the course code of all academic courses. Being credit based with a standard course code, these courses could be tracked using the cohort feature in ISRS.

The four programs each include intentional time spent on students becoming socially integrated with the college. Each did this in its unique way. Program B implements a first year experience course and included tours of campus to find points of interest and resources such as the writing center, admission, financial aid and the tutoring center. Programs A, B2, and C

include time management, study skills, and resume writing within the material covered as part of their other coursework.

All of the programs have an identified target student as one who is low to middle achieving. These target students in each of the programs come from a variety of backgrounds, but most could be aligned with a target population. These target populations are defined by characteristics such as ethnicity, adult-learners, underrepresented, or economically disadvantaged status. Programs A and B2 have enrollment requirements that include many of these target population criteria to participate. It is important to note that beyond target student neither Program B nor C have target population requirements to participate; however, they find that their participants are largely from one or all of these target populations. This is significant in that Community Colleges B and C reside in larger population areas with higher percentages of minority students, yet they offer a summer bridge program regardless of ethnicity.

There is consistency across programs in that all are free to students. The funding that covers that cost varies. Most are funded outside of institutional funds. Community College C currently pays for the program, but it too will be funded from outside with the advent of the regional project. Regarding costs, Community College C is able to conduct a summer bridge program at a fraction of the cost of the others. When reviewing the costs associated with each program, a large percentage of the costs for Programs A, B, and B2 are for food, trips, and activities. While there are goals associated with these trips and activities, the reporting on those goals is light or absent in each of the programs.

The design process used to create the summer bridge program by each college is a fluid process rather than one that follows a specific methodology. Each college recognizes a problem

and sets a process into motion to address it. Each college uses a collaborative approach with a cross-functional team made up of a variety of stakeholders.

The four directors each described that their design team uses the best practices of colleges and programs combined with topic research to define the program. None of the directors could articulate a specific approach or model such as CIPP when asked. This fluidity is also reflected in the goals and outcomes established for each program. While some goals are required by ongoing grant criteria such as with Program B2, the other program goals seem to have been determined by general consensus taking into account what type of reporting would best reflect program success rather than by any methodology of program design.

**Research question 2: What evaluation framework or approach is being used to determine the success of the summer bridge programs at three community colleges in the Minnesota State system?** Research Question 2 explored the method each college uses to evaluate the effectiveness of their respective programs. The director interviews included questions about the outcomes and success measures associated with the program, the evaluation process used, and the effect of the evaluation process on program design for future cohorts.

The four program directors each described an evaluation approach that can be identified from the classification of evaluation approaches described in the literature (Worthen et al., 1997). The four summer bridge programs included in this study each fit within the objective oriented evaluation approach. This approach is generally used to determine if a program has in fact met its stated goals and objectives.

Each program provides a list of goals and objectives that they associate with their agenda. Program C reports on the cost to run the program, which could be considered a management-oriented approach in that the data can be used by the organization to further make programming

decisions. However, the rest of the program's results point to successful attainment of the goals and objectives, which is an objective oriented evaluation.

The evaluation approach for each of the four summer bridge programs at first appeared to reside within the methods domain described by Alkin (2013). It would seem that the combination of both experimental and quasi-experimental and objective oriented can be seen in the evaluation processes used. Programs use Accuplacer pre- and post-test scores and student advancement through developmental coursework as measures. These loosely fit with the experimental and quasi-experimental approach, and they show progress following an intervention. The programs generally appear to follow the objective oriented approach, which intends to validate to what extent a program has met its objectives.

This overlap in approaches may reflect what Fitzpatrick et al. (2004) described when they noted that researchers will typically follow an evaluation process that aligns with their philosophical and ideological beliefs, methodological preferences, and prior experience. This overlap may also simply be the result of programs aligning best practices between existing programs and the methodological process was not considered when determining the goals. This would resonate more closely with how program directors described the creation of the evaluation process during their interviews.

Despite what appears to be a clear alignment with these evaluative approaches, it seems that each college used a fluid process rather than one that followed a specific methodology to determine their evaluation approach. This fluidity was confirmed with each director when asked if they had used a specific program evaluation methodology. Their responses consistently described an ongoing process rather than a specific methodology.

The general perception of evaluation for the four programs is that the evaluation process is put together using best practices and intuitive logic around what needs to be measured to determine program success. Once the program is created and established, the programs uses a holistic approach to review the overall program each year.

The actual processes and actions of this holistic approach taken by the programs can be considered through a larger evaluation lens. With a broader perspective, the actions and activity describe the methodological approach of use rather than methods. The methods approach is a well-defined, intentional approach directly linking objectives with outcomes. Using pre- and post-testing with a defined intervention planned in advance would describe the experimental and quasi-experimental methods. However, the programs' design process are much more organic. Their annual post-mortem meeting clearly describes a continuous improvement process, which cleanly resides within the use domain. Therefore, all of the programs follow a use methodology for their program evaluation rather than a methods approach.

**Research question 3: What evidence is present to indicate the stated goals and outcomes are being met within the summer bridge programs at three community colleges within the Minnesota State system?** Research Question 3 sought to validate the information discovered during the public information review and the program director interviews. The data used to validate the information collected about the programs came from institutional data sources, program evaluation reports, and grant application documents.

Each of the four programs have end of year reports, but only program A has a report readily available to the general public. Programs B, B2, and C all had reports, but each contained a level of detail best used for internal use. Each of these programs was willing to share data for this study with varying levels of redaction to preserve student confidentiality.

The data for these reports was pulled from a number of sources to include institutional databases. While Minnesota State uses ISRS as a repository for student data, only program A uses the cohort feature within the software to be able track to participants. All other programs simply pull the data by name and manually calculate each item to reach aggregated results. The data from these four programs cannot be easily anaylized without the use of the cohort code.

From a system perspective, the ability to track the success of students who attended a summer bridge program using the cohort code is important. Pulling student information from across the state using the same code could yield valuable data with regards to retention and persistence. This is not possible without the use of the cohort code.

The four programs all include qualitative and quantitaive measures to define the goals and outcomes of each program. Generally, much of the quantitative data used to substantiate the accomplishment of a goal or outcome was available; however, much of the qualitative data was not available. Goals and outcomes with qualitative measures were largely unsubstantiated or there was no rubric by which to assess the information in an objective manner.

A key measure used by all four programs is Accuplacer test scores. Each program describes reviewing pre- and post-test scores as a measure improvement. Only program C reports on the pre- and post-test scores and describes the direct affect that has on advancing through developmental coursework.

Surveys are another data collection tool used by all of the programs. The surveys are both short answer essay as well as Likert scaled questions. All of the programs review the surveys at the end of annual program, but none of them calcuate results within or between annual cohorts to arrive at a value that could be compared across time. Program B has a survey that is

calculated across time, but due to a program change, that specific survey has been discontinued. It is possible that the programs have cumulative survey data, but none report having any.

Another key measure noted by all programs is persistence. Persistence and retention are the measures that have been identified as some of the driving forces for implementing summer bridge programs (Cabrera et al., 2013). According to the reported data, Programs A and C track students for one semester beyond the summer bridge program. Program B and B2 track students across multiple timeframes.

The data analysis for Program B2 can not distinguish the effect of the summer bridge program as an entity by itself separate from the overall TRiO Upward Bound program. The goals and measures are applied to all of the participants across multiple years. The key evaluation pieces for the summer bridge program are surveys, which do not have reported results.

Program A has many subjective and indirect goals based the creation of an artifact. Some of these items include a career plan, a learning plan, and identifying learning style. These are not reported on their annual progress report. Some items, such as preparedness for college, are captured in other formats such as essays, but could not be objectively evaluated.

Each of the programs has been in place for at least three years. With this duration, trend data can be assessed from cumulative results. Program A tracks GPA and various participation metrics. Program B tracks GPA, completion, retention, and math pass rates. Program B2 tracks GPA, persistence, graduation and completion, and awards within 6 years. Program C describes a plan to track cumulative data; however, none are provided in their reporting.

An assumption of this study is that programs are tracking data in ISRS, and institutional research staff can access results. Most of the reported data being tracked across years could be

more readily accessed if the participants are listed using the cohort code feature like Program A uses. It would allow greater statistical analysis to be done providing programs with a better understanding of program trends.

The trend across the four programs is that many of the goals are simply reported with a number or percentage associated with them, and they do not provide a target value for comparison. As such, the level of success for these goals cannot be determined. Likewise, there are many qualitative goals that are not included in annual reports. This lack of reporting on items noted as part of the program creates a void of assessable qualitative data. Combined, these suggest a lack of rigorous evaluation as a key concern around these summer bridge programs.

The defined success of each program is consistent with its original mission. Despite the lack of definable target based goals to validate the success, each program shares results that support the original intention of the program, and from their perspective, demonstrate program success. Program A reports on diversity in the program and students completing high school. The same is true with program B, which reports on persistence into college, which is consistent with their focus on helping students become college ready. Program B2 demonstrates success with matriculating students consistent with their program mission. Program C demonstrates the movement of students though the program and the cost savings they earned, which is consistent with the programs intention. However, without a robust portfolio of target goals and the corresponding results kept from year-to-year, the true success of these programs is hard to define.

**Conclusions**

Three conclusions can be made based on the results of this multi-case study. First, the rationale used by post-secondary education institutions for implementing a summer bridge

program varies greatly from one organization to the next based on each institution's goals and strategies. Knowing the institutions goals and strategies can help frame what type of program is needed.

The differences between a retention strategy, recruiting a specific population, or preparing students for a specific program may require attention in different areas. Fowler and Luna (2009) described a range of program types, all of which used the same seven variables of target student, location, student mix, instructor, course content, credits earned, and degree of intensity. Addressing this mix of variables is important in the design of a summer bridge program. Without this framework, a program could be designed without taking into consideration an element needed to ensure success based on the intention of the program.

Second, the design of the summer bridge programs within this study used a mix of best practices and collaborative thought rather than being based on any established methodology or process for program design. Tinto (1975) described in his interactionist theory that students need both an academic and a social component to be successful. When a program is designed using a program framework from Fowler and Luna (2009) and the balance of academic and social integration of the student from Tinto (1975), the program is woven together to form an intentional, supportive environment that helps the student transition successfully from secondary to post-secondary education (Strayhorn 2011). This cohesive design can be flexible such that it meets the needs of both the institution as well as the intended students. Post-secondary education institutions could still use a best practices approach and employ collective thought by directing it around how to intentionally align the framework with the goals and strategies of the institution.

Third, the evaluation of summer bridge programs within this study was a dialogic process that reviewed the program holistically rather than using any established methodology or process for program evaluation. Worthen et al. (1997) categorized program evaluation into five approaches based on who was doing the evaluation or who was receiving the information from the evaluation. The evaluation of a program is an extension of the design of the program and as such consideration on what is to be evaluated should be coupled with the design of the program.

There are approaches that consider both the design and evaluation of a program, such as Stufflebeam's CIPP process (as cited in Alkin, 2013). CIPP considers the context, input, process, and product of a program. This would provide institutions with the knowledge of how their evaluation links to their design and whether the elements of CIPP are being addressed in their evaluative approach. Institutions could still review their programs holistically and have dialogue around the various elements, but using CIPP or a similar approach would provide structure or a rubric for their conversations. This intentional informed design combined with an evaluation structure provides a framework that can be successfully duplicated by others.

Without an intentional design and evaluation process to align institutional strategies and goals with program outcomes, the inclusion of superfluous metrics can take place. This was visible by some of the programs in this study, which included many qualitative measures but did not include substantial reporting on them. This raises the question as to whether the activities included in the program and the costs associated with them are truly necessary to achieve the intended outcomes of the program. This is important when institutional funds are used to fund a program but critical when funds from grants or foundations are used. An impression of the unwise use of funds could lead to a loss of funding and jeopardize a program's existence.

Summer bridge programs have become established as a viable tool used by post-secondary education institutions to assist underprepared students to be successful in higher education (Oliver, 2016). The continued exploration and refinement of the strategies used by these programs to achieve that success would benefit both the participants who attend and the institutions that host these programs.

**Recommendations**

The commitment of post-secondary education institutions to implement a summer bridge program using an identified development strategy for design and evaluation would likely benefit the institution due to a stronger alignment of design elements and desired outcomes with institutional goals. This intentionality in the creation process would foster greater accountability in achieving the outcomes of the program; therefore, it is recommended that future studies explore the success rates of programs designed and evaluated using a defined process like Stufflebeam's CIPP model versus programs that are created organically like those in this study.

Minnesota State as a system has the ability to implement significant strategies beyond the simple sharing of best practices between post-secondary education institutions. The use of summer bridge programs as a viable tool to remediate underprepared students can be seen in this study. It is recommended that future studies explore how Minnesota State can leverage the economy of scale and system infrastructure that already exists within the system to deploy flexible customizable summer bridge programs across the state.

There are likely other special programs, like a summer bridge program, being offered within the Minnesota System. It is recommended that the use of the cohort feature in ISRS be explored as a mechanism to track participant data within these programs across the state.

Encouraging the implementation and use of this ISRS feature would provide access to statewide data that could help to address retention and persistence issues across the entire state.

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## Appendix A: Interview Protocol

### Interview Protocol: Interview Guide for Summer Bridge Program Director Interviews

Date/time/location:

Name (pseudonym):

*(Interviewer note: remind participants that to protect confidentiality, to not use formal names or specific titles in their answers, and to not include other identifiable information. Remind participants of confidentiality and that they should try to use generic modifiers (names, titles, departments) in answers.))*

1. How long have you worked at (name of institution)? What is the scope of your role?
2. Why does the (name of program) exist at (name of institution)?
    - What is the intention of the program?
3. How does the program connect to the overall strategies of the college?
    - What are the connection points?
4. Who is the target audience for the program? Why?
    - How do students get into the program?
5. Is it connected to any other programs?
6. What are the key features of the program? Why?
7. What are the key outcomes for the program? Why?
8. How are key features and key outcomes evaluated?
9. Have you made any changes to it since it started? Why?
10. What type of program evaluation process is used?
    - How often is it done?
11. What are the success measures of the program?
12. What are the ongoing costs associated with the program?
13. How is the program funded?
14. If the current funding source was discontinued, what impact would that have on the institution's decision to continue to offer the program?
15. How long has the program been in existence?
16. Is there anyone else I should speak with to learn more about the program?
17. Is there anything else I haven't asked about that I should I know about your

program?

Closing Comment by Researcher: Thank you again for participating today. I will email the written transcript of this interview to you very soon. You will have the opportunity to review it and approve it for accuracy. Have a great day!

## Appendix B: Public Information Log

Public Information Log

College:

| |
|---|
| Purpose/Focus: |
| Structure/Format: |
| Application Process: |
| Activities: |
| Goals/Outcomes: |
| Other Information from Website: |
| Other Information from Documents Provided: |

## Appendix C: Initial Phone Call Script

1. Hello, this is Matt Bissonette a doctoral student from the University of Wisconsin-Stout.
2. I am conducting a study about summer bridge programs. I am looking at how program design and evaluation theory drive the features and processes within programs. This study is important because it will provide a framework to connect theory to practice for future programs.
3. This case study will look at three community colleges within the Minnesota State system where I will interview the program director of each program.
4. The participants will be interviewed for 30 minutes or less and will approve the interview transcript, post interview for accuracy. Total time commitment is approximately 45 minutes.
5. Do you have any questions I can answer about this research study?
6. Would you be willing to set aside 45 minutes to participate?
    a. (If yes) the interview will be face to face. I will coordinate a time with you to come to your campus to conduct the interview.
    b. (If no) thank you for your time, is there another person at your institution familiar with the summer bridge program that could speak to regarding its design and evaluation?
7. I would like to send you and email with the informed consent document along with the interview protocol to review, is there an email that is best to be used in this case?
8. Thank you for your participation in this study, you will receive an email today to schedule the interview based on your schedule needs. The informed consent document and interview protocol will be attached.

## Appendix D: Initial Email to Participant

Dear Participant,

It was nice talking with you via phone, I have attached the informed consent document and interview protocol for your review. Please reply to this email with the date and time you have selected to be interviewed between (insert dates) to tweedym@my.uwstout.edu within 5 days after receiving this email.

Participation reminder: your participation involves a 30-45 minute interview with me a 15 minute review of the interview transcript.
Thank you,

Matt Bissonette
Graduate Researcher
University of Wisconsin-Stout
507-363-2093

## Appendix E: Consent Form

### Consent to Participate In UW-Stout Approved Research

Dear Participant,

My name is Matt Bissonette, and I am a graduate student enrolled in the Career and Technical Education, Ed.D program at the University of Wisconsin - Stout. I am completing a mixed methods research project entitled, *Analyzing the design and evaluation of summer bridge programs at three community colleges within the Minnesota State system* that requires interviews as one form of data collection. I would like you to participate in my study by means of interview and I am seeking your consent. Please read the following consent for participation, and if you agree, please sign.

**Description:**
The research is intended to understand the design features and evaluation processes of summer bridge programs at community colleges within the Minnesota State system. This will be accomplished by means of a website review of each program, interviewing summer program directors and comparing institutional data.

**Risks and Benefits:**
There are no perceived risks for participation in this study. A potential benefit is that the interview may help the interviewer become more aware of how their program design and evaluation facilitate success in their program.

**Time Commitment and Payment:**
The time commitment for the interview process will be approximately thirty to forty-five minutes.

**Confidentiality:**
Understand that the researcher will not identify the participant or their institution of employment by name in any reports using information obtained from this interview, and that confidentiality as a participant in this study will remain secure through the use of coding names of participants, and destroying voice recordings and any identifiable information including field notes at the conclusion of the study. Data from the interview will not be used outside of this study.

**IRB Approval:**
This study has been reviewed and approved by The University of Wisconsin-Stout's Institutional Review Board (IRB). The IRB has determined that this study meets the ethical obligations required by federal law and University policies. If you have questions or concerns regarding this study, please contact the Investigator or Advisor. If you have any questions, concerns, or reports regarding your rights as a research subject, please contact the IRB Administrator. IRB approval will also be attained from the two-year colleges that employ the participants of this study. If any of the 2-year colleges do not require IRB approval, the researcher in this case will attain written documentation.

**Investigator:**
Matt Bissonette
507-363-2093
bissonettem0479@my.uwstout.edu

**Advisor:**
Deanna Schultz, Ph.D.
715-232-5449
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**IRB Administrator**
Elizabeth Buchanan, Research Services
152 Vocational Rehabilitation Bldg.
UW-Stout
Menomonie, WI 54751
715.232.2477
irb@uwstout.edu

**Statement of Consent:**
By signing this consent form you agree to participate in the project entitled, *Analyzing the design and evaluation of summer bridge programs at three community colleges within the Minnesota State system*. If you choose to decline participation in this study there will not be any adverse consequences.

_____

Signature Date

## Appendix F: Member Check Email

Dear Participant,

Please review the attached interview transcript to be sure the transcription accurately reflects your responses. If you believe that any changes need to be made to the interview transcript, please note them on the document and return it by email to bissonettem0479@my.uwstout.edu within 5 days after receiving this email.

Thank you,

Matt Bissonette
Graduate Researcher
University of Wisconsin-Stout
507-363-2093