

**REFLECTIONS ON
CONNECTING
RESEARCH AND
PRACTICE IN COLLEGE
ACCESS AND SUCCESS
PROGRAMS**

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ACKNOWLEDGEMENTS

This publication is the product of collaboration between members of the Association for the Study of Higher Education (ASHE) and members of the Pell Institute for the Study of Opportunity in Higher Education. This is one of five ASHE Research and Policy/Practice Collaborations initiated by Dr. Laura W. Perna, while president of ASHE, and supported by the William T. Grant Foundation.

The ASHE Research and Policy/Practice Collaborations are designed to improve connections between research, policy, and practice. They involve collaborations between ASHE and five intermediary organizations that seek to help higher education policymakers and practitioners identify, understand, and apply research-based evidence. The five partner organizations are the Council on Independent Colleges, Association of International Educators (NAFSA), the National Association of Student Financial Aid Administrators (NASFAA), the Pell Institute for the Study of Opportunity in Education, and the Western Interstate Commission on Higher Education (WICHE).

As with the other four collaborations, members of ASHE and The Pell Institute began working together in November 2014 and presented findings from their yearlong collaboration in a presidential session at the 2015 ASHE Conference in Denver, Colorado on November 4-7, 2015. The content in this publication is solely the responsibility of the authors and does not necessarily represent the official views of ASHE, The Pell Institute, or the William T. Grant Foundation. More information is found on the ASHE website: <http://ashe.ws/?page=804>.

For questions on this report, contact The Pell Institute.

Suggested citation: Rowan-Kenyon, H. T., Cahalan, M., & Yamashita, M. (Eds). (2018). *Reflections on connecting research and practice in college access and success programs*. Pell Institute for the Study of Opportunity in Higher Education. Washington, DC.

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INTRODUCTION BY HEATHER T. ROWAN-KENYON

There are large gaps in educational access and attainment between the rich and poor in the United States. In 2016, there was a 25 percentage-point gap in college enrollment rates for high school graduates in the top and bottom family income quartiles. There were also gaps in attainment rates, with only an estimated 11 percent of dependent students from the lowest family income quartile attaining a bachelor's degree by age 24, compared with 58 percent of students from the top family income quartile (Cahalan, Perna, Yamashita, Wright, Santillan, Pell Institute and PennAHEAD, 2018).

Reflections on Connecting Research and Practice in College Access and Success Programs is the result of a collaboration between the Association for the Study of Higher Education (ASHE) and the Pell Institute for the Study of Opportunity in Higher Education (Pell Institute). ASHE received a grant from the William T. Grant Foundation to explore collaborations with the Pell Institute and four additional partner organizations, including the Council of Independent Colleges, NAFSA: Association of International Educators, the National Association of Student Financial Aid Administrators (NASFAA), and the Western Interstate Commission on Higher Education (WICHE). The goal of the ASHE/Pell collaboration was to address how researchers and practitioners can best work together to address their mutual goal of reducing these gaps and fostering increased opportunity for college access and success for all students and especially for low-income, first-generation students and students with disabilities that federal programs such as TRIO and GEAR UP as well as many other programs at the state and local levels are intended to serve.

The overall grant was based on the premise that too often researchers conduct studies that have little relevance to policymakers and practitioners, and policymakers and practitioners are too often unaware of the relevant research that does exist. The aim of this initiative was to improve research-and-practice connections by encouraging collaborations between members of our higher education research association (ASHE) and members of each of five organizations that seek to help higher education policymakers and/or practitioners identify, understand, and apply research-based evidence. Intermediary organizations can play an important role in connecting research and practice, but frequently these intermediary organizations have limited capacity to effectively play this role.

The goal of our specific collaboration between ASHE and the Pell Institute is focused on exploring links between research and practice in TRIO and GEAR UP programs to increase college access and attainment. In particular, we focused on how researchers and college access and success practitioners can best work together to inform one another and promote better outcomes for students. While our examples are primarily from the federal TRIO/GEAR UP programs, it is our hope that this compilation will inform the work of researchers and practitioners who are working generally in the field of college access and success, especially those with a focus on low-income, first-generation students and students with disabilities. Some of the primary questions that emerged from our working group include:

- How do we know what works, when, in what context, and for which students?
- How can TRIO and GEAR UP practitioners make the best use of the extensive tracking data required for performance reporting in a manner that gets beyond compliance? The data has detailed individual student records of the outcomes of the students that are served. We ask the question of how this data can be used to institutionalize using data for program improvement.
- How do we bring together external and internal evaluators to promote internal program improvement and external program evaluation?
- How do we build relationships and trust between researchers and practitioners?
- What is the map of practitioner knowledge related to research and evaluation?

This essay collection is comprised of contributions by researchers and practitioners based on some of the above themes. In the first chapter, *Historical Reflections and Thoughts Moving Forward on Connecting Research and Practice*, Laura Perna from the University of Pennsylvania focuses on inequality in connecting research and practice. Paul Beasley from the University of South Carolina shares some historical perspectives of TRIO programs and connecting research and practice in college access. Then, Margaret Cahalan from the Pell Institute for the Study of Opportunity in Higher Education shares 16 lessons for researchers and practitioners from the Mathematica Policy Research's National Evaluation of Upward Bound Study.

Chapter two, *How to Make Collaboration Work*, is composed of seven essays focused on researcher and practitioner collaborations. Judy Marquez Kiyama from the University of Denver and Kristan Venegas from the University of Southern California each talk about building trust between researchers and practitioners. Ezekiel Kimball, Tyson Rose, Yedalis Ruiz, and Ryan Wells illustrate one of these partnerships with researchers and practitioners from the University of Massachusetts Amherst and share lessons learned from their work. Angela Bell, Robert Anderson, Georgia Hughes-Webb, and Adam Green explore why relationships between researchers and staff of college access and success programs can be difficult but argue that the benefits for all are significant, using an example of the West Virginia GEAR UP program evaluation. Christopher Mullin from Strong Start to the Finish examines how to structure programs to acknowledge both program improvement and excellence, with a specific focus on leadership and management. Oscar Felix from Colorado State University and past COE Board Chair talks about formulating communities of practice to better link research and practice in the TRIO community. Mika Yamashita from the Pell Institute for the Study of Opportunity in Higher Education discusses the origin of the competitive preference priorities that appeared in Student Support Services and Talent Search grant applications in recent years and urges TRIO programs to articulate their own specific logics of evidence use that reflect how TRIO professionals work in practice.

In our final chapter, *The Relationship between Research and Practice: The Recent Landscape*, Margaret Cahalan explores the implications of the What Works Clearinghouse and the Competitive Preference Priorities (CPPs) for TRIO programs and services. Mika Yamashita then shares our attempt to map the terrain of practitioner knowledge related to research and evaluation. Members of our working group conducted an on-line survey of TRIO

project directors to map the landscape of practitioner use of data and evaluation, issues of collaboration between practitioners and academics and contractors--- and to some extent tried to map the substantive knowledge base of practitioners. We had 80 TRIO program practitioners respond to our 80-question survey, and Mika shares these findings in her piece. Finally, Heather Rowan-Kenyon, Mika Yamashita, and Margaret Cahalan provide a wrap-up of the work of the collaboration.

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CHAPTER I

HISTORICAL REFLECTIONS AND THOUGHTS MOVING FORWARD ON CONNETCING RESEARCH AND PRACTICE

IMPROVING CONNECTIONS BETWEEN RESEARCH AND PRACTICE BY LAURA W. PERNA¹

Abstract

This essay first reflects on the differences between researchers and practitioners and then offers suggestions for ways to improve connections between TRIO program research and practice. It concludes by offering additional recommendations for ways that TRIO practitioners and academic researchers can collaborate to accomplish shared goals for first-generation and low-income students.

Introduction

Improving college access and success for students from low-income families and students who are the first in their families to attend college requires a multi-faceted, comprehensive approach, and commitment from multiple players (Perna & Jones, 2013). Among the important players are the federally-sponsored TRIO programs. Research demonstrates the positive effects of TRIO programs on students' college-related outcomes (Maynard et al., 2014). Methodologically rigorous research studies conducted by Westat and Mathematica Policy Research show that: Student Support Services promotes persistence in college, college credit accrual, and college grades; Talent Search increases applications for financial aid and postsecondary enrollment; and Upward Bound Math-Science has positive effects on enrollment in selective four-year institutions and completion of a bachelor's degree in a math or science discipline (The Pell Institute, 2009). In a meta-analysis of research that used experimental or quasi-experimental research designs, Maynard et al. (2014) found that, on average, the studied TRIO and other

college access programs increased college enrollment by 12 percentage points.² Other research demonstrates the cost-effectiveness of Talent Search, especially relative to other dropout prevention programs, in promoting high school completion (Levin et al., 2012).

¹ This essay draws from testimony I presented to the Subcommittee on Higher Education and Workforce Training, Committee on Education and the Workforce, United States House of Representatives, Washington, DC on April 30, 2015 and from a meeting entitled, *Improving the connection between research and state policy for increased attainment*, I co-convened with the Lumina Foundation in Washington, DC on February 20, 2015. During this meeting, a small group of academic researchers and leaders of "intermediary organizations" discussed strategies for improving connections between academic research and state policymaking. Intermediary organizations can play an important role in connecting academic research and policy/practice, as these organizations tend to conduct and/or sponsor their own research projects and translate research findings to policymakers and practitioners. The Pell Institute may be considered an intermediary organization, as it seeks to help public policymakers and TRIO practitioners identify, understand, and apply research-based evidence to improve TRIO program practice.

Despite this research evidence, there is much that we do not know about “what works” among TRIO programs. To maximize the benefits of college access and success programs to student outcomes, policymakers and practitioners need to know which components and services work, for which groups of students, in which contexts (Perna, 2002). In their comprehensive meta-analysis of research on the effects of college access programs on college readiness and/or college enrollment, Maynard and colleagues (2014) identified only 34 studies that were published between 1990 and 2013 that used experimental or quasi-experimental research designs. Of the 34 studies, 18 provided sufficient information to conduct a cross-study review of effects of targeted interventions on college readiness and/or enrollment (Maynard et al., 2014). This is a remarkably low number, given the large number of TRIO and other college access programs that are operating across the nation. Even fewer studies have attempted to identify the effects on college-related outcomes of particular program components and services (Maynard et al., 2014).

Why are there so few studies that meet these criteria and address the knowledge needs of policymakers and practitioners? Lack of interest would not seem to be the problem: TRIO program leaders and administrators want to use practices that are known to produce meaningful improvements in the college-related outcomes of the students participating in their programs. Academic researchers want to produce high-quality research that effectively demonstrates the effects of particular practices on student outcomes.

Nonetheless, despite overlapping goals and interests of TRIO practitioners and academic researchers, differences in incentives, approaches to objectives, and time horizons between the two groups may limit the extent to which their shared goal is achieved. This essay first reflects on these differences and then offers suggestions for ways to improve connections between TRIO program research and practice.

Differences between Academic Researchers and TRIO Program Practitioners

Academic researchers and TRIO program practitioners differ in many ways. One difference pertains to orientations and motivations. Academic researchers are trained to identify implications for theory, identify the many contextual forces and limitations that influence results, and employ research designs that require extensive time to implement and complete. Academic researchers are incentivized to publish articles in academic journals, a process that may delay the dissemination of research-based findings until months or years after the research has been conducted.

² This meta-analysis includes a controversial study that found that Upward Bound has “no detectable effect” on college enrollment (Seftor, Mamun, & Schirm, 2009). Reevaluations of data from this study show that, when design flaws of the Seftor et al. study are taken into account, Upward Bound has positive effects on college enrollment, college completion, and applications for financial aid (Cahalan & Goodwin, 2014; Harris, Nathan, & Marksteiner, 2014). Including the reevaluation of Upward Bound rather than the original Upward Bound study in the Maynard et al. meta-analysis increases the pooled effect of the studied programs on college enrollment from 11.9 percentage points to 12.2 percentage points.

TRIO program leaders and practitioners are motivated to take immediate action, implementing the practices that they believe to be beneficial to the particular students that they serve. Whereas academic researchers strive for objectivity, TRIO program leaders and practitioners may prefer practices that are relatively easy to implement, familiar to program staff, and perceived to be effective by students and other stakeholders.

TRIO program practitioners and academic researchers also differ in terms of their access to and perspectives on relevant data. TRIO practitioners control the collection and management of programmatic data. With a primary focus on delivering services, TRIO programs typically have relatively few human or other resources for in-house data collection and analysis. Academic researchers have the methodological training and resources to analyze the data but may not have the connections with TRIO programs that are required to gain access to needed data or understand the logistical challenges of collecting different data.

Creating the potential for uneven power dynamics, TRIO program administrators and academic researchers also tend to differ in terms of institutional resources and other sources of support. TRIO program administrators may have fewer institutional resources on which to draw than academic researchers. Academic researchers also tend to be more highly paid than the TRIO practitioners who are delivering program services.

Improving Connections between TRIO Research and Practice

Creating meaningful improvements in the connections between TRIO research and practice requires recognition of these and other differences in incentives, motivations, time horizons, and resources. This section suggests strategies for recognizing these differences and, consequently, helping to ensure that TRIO practitioners and academic researchers achieve the shared goal of identifying the most effective use of available resources for improving college access and success for low-income and first-generation students.

Implicit in these suggestions is the assumption that both academic researchers and TRIO practitioners have assets and strengths that should be capitalized upon. While academic researchers possess expertise in the procedures for conducting research, TRIO program practitioners are experts in what the programs seek to accomplish, for whom, under what constraints.

TRIO program practitioners who seek to improve connections between research and practice should:

1. Request resources in funding proposals to support and advance data collection and research;
and
2. Involve researchers early in the process of conceptualizing data and research efforts.

TRIO program administrators are incentivized to collect data that satisfies government accountability demands. But, academic researchers often find these data alone to be insufficient for conducting methodologically rigorous research studies. By involving researchers early in the process of conceptualizing data and research, and by requesting resources to advance data

collection and research in funding proposals, TRIO programs will help to productively advance connections between research and practice.

Higher education researchers who seek to promote better connections between research and practice should:

1. Conduct research that addresses the knowledge-needs of TRIO practitioners;
2. Empower practitioners to partner in the conduct of research; and
3. Make research results available and accessible to TRIO practitioners and policymakers.

For academic research to have a meaningful impact on TRIO practice, it must be relevant to the knowledge needs of TRIO practitioners. Practitioners often have questions about the practices that produce desired outcomes, the design and implementation of effective practices, and variations in effects of practices across groups of students and contexts. Practitioners also want to know what they think that they don't already know. Academic researchers and TRIO practitioners need to engage with each other to achieve shared understanding of knowledge needs and research goals.

Academic researchers should also work to empower practitioners in the research process. Rather than treating TRIO program practitioners as subjects to be studied, academic researchers should consider opportunities for action research and other research approaches that involve TRIO practitioners as partners in the conduct of the research.

Academic researchers need to not only learn the knowledge needs of TRIO practitioners, but also make the results of their research accessible. TRIO program leaders and administrators – and the policymakers to whom they are accountable – often do not have access to scholarly journals, or the time to read lengthy manuscripts. Academic researchers should consider disseminating results in outlets that are typically read by TRIO practitioners and producing short, easy-to-digest summaries with links to additional information.

Role of Foundations and Scholarly Associations in Promoting Connections between TRIO Research and Practice

Foundations and academic research associations can also play a role in promoting connections between academic researchers and TRIO practitioners. Typically only academic researchers attend and participate in conversations at academic/scholarly research conferences. Recognizing this structural reality, the William T. Grant Foundation provided a small grant to ASHE to encourage collaborations among ASHE members (researchers) and members of external organizations that are oriented toward serving policymakers and practitioners. As part of this project, Heather Rowan-Kenyon (Associate Professor at Boston College and ASHE member) and Margaret Cahalan (Director of the Pell Institute) have been actively engaged in promoting discussions among ASHE researchers and TRIO practitioner. As then president of ASHE and PI on the William T. Grant Foundation grant, I am excited about the ways in which this collaboration (along with collaborations between ASHE members and representatives of four other intermediary organizations) are helping academic researchers and practitioners develop shared research priorities and other shared goals and outcomes.

More research-based knowledge is needed about best practices for promoting college-related outcomes for low-income and first-generation students along the college-going pipeline, from middle-school into post-graduate study, and for both traditional-age students and adults who aspire to attend and complete college. By recognizing and capitalizing on differences in perspectives and resources, and by intentionally acting to build bridges between research and practice, researchers and practitioners are more likely to accomplish the shared goal of ensuring that available resources are effectively used to improve college-related outcomes for low-income and first-generation students.

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Dr. Perna's research uses a range of methodological approaches to identify how social structures, educational practices, and public policies can promote college access and success, particularly for groups that continue to be underrepresented in higher education. Recent books include *The Attainment Agenda: State policy leadership for higher education* (with Joni Finney, 2014, Johns Hopkins University Press).

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CONNECTING PRACTITIONERS AND RESEARCHERS TO STRENGTHEN COLLEGE ACCESS AND SUCCESS PROGRAMS BY PAUL BEASLEY

Connecting research and practice in college access and success programs first requires connecting researchers and practitioners. The usefulness of high-quality research to the development of solutions to problems as complex as those that create the need for college access programs is undeniable. But so is the involvement of practitioners who not only understand the objective dimensions of effective interventions but also the importance of acknowledging and preserving the dignity of clients. Research that places concern for its structure above concern for the dignity of participants is inherently flawed regardless of its approach. Working with practitioners who have appropriate sensitivity and respect for clients as well as knowledge of experimental design can help to ensure the development of high-quality studies that are useful to practitioners and fair and ethical to the programs and individuals they are supposed to help.

A connection between quality research and practice in college access and success programs would align the work of college access programs with that of other professions in which clients depend on knowledgeable practitioners to guide them in making critical decisions about their lives. Just as it is reasonable to expect doctors, social workers, and psychologists to have appropriate expertise guided by up-to-date research, it is also reasonable to expect college access professionals to use these components of evidence-based practice in their work with children and young adults. Decisions about attending college can be as consequential as decisions about health, especially for disadvantaged students for whom a college education is not an option but a necessity if they are to achieve an adequate standard of living in the twenty-first century. Wages for poorly educated and less-skilled

Abstract

TRIO programs have had a complex relationship with research which illustrates some of the problems that must be addressed to connect research and practice in college access programs. This paper explores that relationship from the vantage point of over 40 years of experience in TRIO administration. It reviews the impact of federal regulations on program development and the consequences of several national studies that used both experimental and quasi-experimental designs. This paper concludes with ideas for strengthening the link between research and practice in college access that emphasizes practitioners as full partners in the process. It calls on government, professional associations, and higher education to facilitate these partnerships to encourage high quality research studies that focus on identifying effective strategies and that show evident respect for the programs and their participants.

workers are already below the poverty level, and employment projections favor only those with high-level skills. Since most poor and working class students have inadequate academic preparation and high financial need, it is unlikely that they can succeed in college without proper guidance. In fact, uninformed and unsuccessful attempts to earn college degrees can create the additional hardship of wasted financial aid eligibility and loan indebtedness that can last a lifetime. Providing help with these challenges is the important work of college access programs, and this work should be guided by evidence-based practice with expectations for high-level expertise supported by rigorous research and implemented with high regard for students.

The absence of a strong connection between TRIO college access programs and research is not surprising, even though most of these programs are based in higher education where a substantial amount of research takes place. College access did not develop as education theory but as political advocacy during the Civil Rights Movement. As political policy, funding for programs realistically depended on effective work within the halls of Congress and state legislatures that did not necessarily involve research. The influence of successful political advocacy has had a lasting impact on the programs and the people who work in them. TRIO practitioners are organized within a network of organizations led by the Council for Opportunity in Education (COE) and committed to strengthening program and staff capabilities, building collaborations with public and private interests to improve and expand college access, and, most noticeably, encouraging congressional support for college access and success.

Advocacy during the Civil Rights Movement led to the Higher Education Act of 1965, which also had a tremendous impact on the early development of college access in both meaning and operation. This legislation contained several grant programs, including the TRIO Programs, which made the federal government the largest provider of support for college access services. The size and scope of these programs gave significant influence to the rules and regulations developed by the Department of Education for grant administration. Compliance became an important concern to those interested in continuous funding since the loss of funding eligibility most often resulted from noncompliance.

Concern about compliance with federal rules had a particular impact on the use of research. Within the grant application process, applicants had to certify that grant funds would not be used for research that involved human subjects. This restriction was often explained by federal program officers as a strict prohibition on all research. Eager to avoid violation of rules that determined eligibility for continued funding, program managers excluded all activities and expenditures associated with research activities.

Coupled with this perceived restriction on research were regulations that limited participation in grant activities to the small number of program participants who were often only a fraction of a college's or school's student population. This resulted in most programs operating in isolation from the mainstream of student activity, and being nearly invisible to the majority of faculty and staff who did not interact with them. Although later revisions in the regulations allowed for some integration of programs services with the general administration of campus activities, this early isolation of programs on campus, and their lack of interaction with general student concerns, resulted in limited opportunities for TRIO Programs to develop relationships that might lead to collaborations with practitioners and researchers.

Federal grant administration and an emphasis on compliance also meant accepting the particular notion of college access spelled out in funding criteria, which for TRIO Programs have not changed substantially in the past 50 years. This has resulted not only in stagnant program development but also in a uniform approach to college access programming across the broad spectrum of higher education. For example, the grant application for the TRIO Student Support Services Program requires community colleges, regional campuses, research universities, and all other eligible institutions to work from the same parameters for program development with only few exceptions for institutional type. This uniform approach is based in research from the 60s and 70s that most often conceived of college access programs as remedial services. Beyond reauthorization of the Higher Education Act, few opportunities exist to make changes in this process.

During the 1990s and 2000s, the U.S. Department of Education used random assignment and quasi-experimental studies to evaluate the effectiveness of several TRIO programs. These studies were conducted under large contracts with national firms. Mathematica Policy Research Inc. (2009) conducted a longitudinal random assignment study of Upward Bound. It also conducted a quasi-experimental study of Talent Search (2006) that was limited to three states, Texas, Florida, and Indiana, and based on analysis of administrative data files. The National Evaluation of the Student Support Services Program, conducted by Westat (2010), was a longitudinal study that provided statistical comparisons on the academic achievements of program participants to those of a matched group of non-participants. Its quasi-experimental design involved 5,800 freshmen evenly divided into treatment and control groups, tracked for six years and evaluated using both quantitative and qualitative data.

The two quasi-experimental studies found areas of effectiveness. For Talent Search it was in first-time applications for financial aid and initial postsecondary enrollment rates. The Student Support Services Program showed moderate but statistically significant effects based on differences in service levels. The more students participated in program services the greater the benefit on grade-point averages, credits earned, retention, and degree completion. The quasi-experimental design of these studies and their modest findings attracted little reaction, especially in comparison to that generated by the Upward Bound study, its use of random assignment, and its finding that the program had no major effects on college enrollment or completion. In spite of glaring weakness (Cahalan, 2009, Cahalan & Goodwin, 2014), its results were used to justify a request to eliminate funding for Upward Bound, Talent Search and GEAR UP, an OMB rating of “ineffective,” and a call for new strategies in the distribution of federal TRIO funds (Haskins & Rouse, 2013).

From the beginning, the Upward Bound study did not go over well in the TRIO community, which voiced objections prior to the start of any work. However, program practitioners were given no opportunities to help define its scope or influence its implementation. The Department of Education required participation as a condition of funding, which made the study come across not as a search for effective practice but as a compliance investigation. This perception by practitioners had a significant and negative impact on the study’s implementation and the level of cooperation from the TRIO community.

Program practitioners further objected to the way researchers sought parental approval for student participation in the study. As with programs, students had to agree to participate in the

study as a condition of acceptance into Upward Bound. The terms of acceptance required providing access to confidential information for a period of years. The contractor for the study explained these terms in letters that used dense language few parents of first-generation college students would understand. For this and other reasons, some universities prohibited their Upward Bound projects from participating in the study without an institutional review board examination for human subject violations.

The study's random assignment procedures required each project to solicit twice the number of applicants it needed to create a control group of program-eligible students. Students in the control group were to be denied services not just from Upward Bound but all college access programs (e.g. Talent Search). Program practitioners adamantly opposed this denial of services and expressed concern about the negative impact of this denial on the reputation of their programs. Since students in the control group were those willing to complete the extensive application process most Upward Bound projects require, they were also willing to look for other opportunities for college access participation once they were denied acceptance by random assignment procedures. Most of these students went on to participate in other college access programs (Upward Bound on other campuses, Talent Search, and GEAR UP) even though they remained in the Mathematica control group. This created statistical bias in favor of the control group.

Cahalan (2009) and Cahalan and Goodwin (2014) issued pointed criticism of the Mathematica study of Upward Bound from the unique position of having been on the inside of the Department of Education as officials responsible for the study. They noted that "the 2009 (final) report was published over the objections of the ED career technical staff assigned to monitor the final contract, and after a 'disapproval to publish' rating in the formal review process from the Office of Postsecondary Education." Their detailed review contained poignant criticism of the study's overly ambitious design, its seriously flawed sample design, the atypical use of a single project to represent the largest stratum of institutional types, and the lack of balance between the treatment and control group. Based on these and other flaws, the Council for Opportunity in Education (COE) submitted to the Department of Education a formal Request for Correction of the Mathematica final report. The American Evaluation Association and American Educational Research Association signed a Statement of Concern based on this request. In spite of these criticisms, the Upward Bound evaluation study by Mathematica continues to be the basis for policy proposals and decisions in large part due to its use of random assignment.

This history reveals why current emphasis on the use of rigorous research to validate program practice is disconcerting to TRIO administrators. Deciphering and using high-level research requires being familiar with an esoteric skill set that is very different from the compliance-focused work previously emphasized in federal grant administration. Based on experience with national evaluation studies, working with rigorous research can also be unrewarding and disruptive. Of the three evaluation studies commissioned by the Department of Education, only the Student Support Services evaluation identified effective practices that influenced how programs operate. Its finding that home-based and blended programs were related to improved student outcomes resulted in the increased use of these features in program models. However, the random assignment study of Upward Bound, which involved intrusive procedures that were disruptive to programs, students, and schools, produced no recommendations to improve

practice. With these experiences, it is understandable why TRIO practitioners would be cautious of a requirement to validate program practice with rigorous research.

But these reasons to be cautious should not cause practitioners to overlook what can be gained from effective use of rigorous research. The problems that create the need for college access programs are complex and numerous, and solutions will be no less complicated. Well-structured and high-level research provides the best basis for examining this complexity and creating better outcomes for students. But this should not cause us to think that random assignment is an infallible panacea to be tolerated under all circumstances. As with any other tool, its effectiveness will result from appropriate use that starts with respect for the programs and clients it is intended to help.

Judith M. Gueron (2000), a noted researcher with Manpower Demonstration Research Corporation and a proponent of random assignment studies, argues for the judicious use of social experiments and the careful interpretation of their results. She explains that these studies are administrative and ethical burdens and should not be used unless they are carefully developed, address the right question, and meet all ethical and legal standards. She lists other preconditions that require researchers to show that they can convince people that there is no easier way to get the answers, balance research ambition against operational reality, implement a truly random process, follow enough people for an adequate length of time to detect policy-relevant impacts, collect reliable data on an adequate number of outcomes, and assure that people get the right treatment. These difficult preconditions are more easily accomplished with the help of program practitioners.

The National Center for the Study of Adult Learning and Literacy (NCSALL) has helpful ideas for involving practitioners in research. As discussed by Smith et al (2002), sustained interactivity among researchers and practitioners leads to greater research utilization. Providing practitioners with research information in an accessible form and arranging venues for exploration, reflection, and implementation encourage this interactivity. NCSALL uses its “Practitioner Dissemination and Research Network,” which is comprised of adult education teachers and administrators, to facilitate interactions between researchers and practitioners. These “practitioner leaders” assist researchers with data collection, review and interpretation of initial findings, and dissemination of results.

All of the different players connected to college access and success programs can have a role in forging this type of cooperation between researchers and practitioners. The Department of Education can sponsor forums that bring together researchers and practitioners to hear each other’s interests and concerns. Through its ability to award grants, the Department can ask questions that encourage researchers and practitioners to work together to uncover answers. It can also encourage collaborations at the campus level by promoting partnerships between faculty researchers and program practitioners through its competitive preference process.

On-campus collaboration can take place even without federal involvement. Demographic projections indicate that all sectors of higher education will see increased enrollment from student groups that are currently underserved. Colleges and universities will want to know more about how better to retain their Pell Grant recipients, improve their campus climate for underrepresented minorities, and create other opportunities for students who require assistance

from college access programs. By encouraging cooperation between faculty researchers and practitioners, existing campus-based college access programs can help individual colleges and universities develop interventions that are custom fitted for their unique situation.

The efforts by professional associations to support and strengthen the connection between research and practice in college access and success program are significant. Noteworthy among these efforts is the 2003 project by the Social Science Research Council (SSRC) called "Transitions to College: From Theory to Practice." Sponsored by the Lumina Foundation, this project focuses on postsecondary transition and retention successes and failures for disadvantaged youth. It brought together scholars and practitioners from a variety of disciplines and methodological backgrounds to clarify what was known about the transition to college, identify gaps in this information, and create links to policy and practice. This work produced several field-based literature reviews of academic work in ten disciplines. It also led to a 2005 publication by the SSRC entitled "Questions that matter: Setting the research agenda on access and success in postsecondary education." Responding to this publication, the Pathways to College Network, Social Science Research Council, and the Institute for Higher Education Policy convened a 2007 "Questions that Matter" conference that involved researchers, practitioners, and policy makers in a discussion of future research on improving college access and success for underserved students.

The collaboration involving the Association for the Study of Higher Education, the Council for Opportunity in Education, and the Pell Institute continues efforts by professional associations to bring researchers and practitioners together. Relatedly, the Association of Public and Land-Grant Universities and the American Association of State Colleges and Universities recently launched a project in which nearly 500 public colleges and universities committed to increase their numbers of college graduates, especially among underserved student populations. This work very much involves examining the practice of college access programs and creates opportunities for researchers and practitioners to do so through collaborations.

Within K-12 education, the strength of teachers is recognized as the single most important factor in the education of poor and working class children. The same can be said for college access programs, which must address numerous concerns and issues that represent the full scope of consequences resulting from poverty and minority status. Program staff must have the particular knowledge and ability to address these concerns and to work within the various areas (financial aid, academic support, cultural enrichment, diversity training, mentoring, parent programming, faculty training, cross-campus collaborations, secondary school programming, evaluation, etc.) that collectively constitute an effective college access program. The qualification of staff is the primary basis for effective practice. The current emphasis on the use of rigorous research adds to these qualifications the ability to understand the structure of quality research, and the willingness to collaborate with researchers. A very important part of this responsibility is ensuring the highest regard for student concerns and well-being. Practitioners bring that special contribution to the table like no others.

The kind of preparation required to administer effective college access and success programs should be formulated within the academic curriculum and recognized with academic credentials. Such a course of study should necessarily include the development of research and evaluation competencies. The graduate certificate program established by Colorado State University and

the Council for Opportunity in Education is noteworthy for providing current college access professionals with academic courses and meaningful qualifications directly related to their work in college access programs. As other colleges and universities adopt these academic programs, the better able college access practitioners will be to use and define effective research.

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EVALUATION ERRORS: SIXTEEN LESSONS FOR RESEARCHERS AND PRACTITIONERS FROM THE MATHEMATICA UPWARD BOUND STUDY

BY MARGARET CAHALAN

Abstract

The long running National Evaluation of Upward Bound (1992-2009) was considered a gold standard random assignment study designed to assess the average impact of the Upward Bound Program. After the study had been active for over a decade, and published several impact reports, a quality assurance review conducted by ED found serious sample design, treatment control group bias and analyses and reporting issues that were serious enough to impact the study conclusions.

Using the Upward Bound evaluation as a case study, this essay presents 16 lessons learned for researchers and practitioners alike for future evaluations in designing, implementing, analyzing, and reporting results.

The Trump administration's proposals to continue funding only those programs that have "evidence of effectiveness" and the associated President's FY2018 budget proposals to cut critical service programs, including TRIO and GEAR UP programs, have prompted me to prepare this essay. Mr. Trump's threats and proposals are similar to those put forth by President Bush in his FY2005 and FY2006 budgets calling for zero funding of Upward Bound (UB), Upward Bound Math Science (UBMS), Talent Search (TS), and GEAR UP. These proposals were justified in President Bush's budgets by the early and interim findings from the Mathematica Policy Research's (Mathematica) National Evaluation of UB (Myers et.al. 1999; Myers et.al. 2004) that were later found to be erroneous (Cahalan 2009; Cahalan and Goodwin 2014; Nathan 2013; Harris et.al. 2014). It was only after extensive practitioner lobbying in Congress in 2006, by COE and other college opportunity groups that the programs were ultimately saved, albeit with continual decreases in number of students served due to the resulting level funding for over a decade. This level funding was only checked after 2016 with increases for TRIO in the 2017 and 2018 budgets.

This essay is also written in response to the May 2017 blog posting by Paul Decker, CEO of Mathematica Policy Research (Mathematica). Dr. Decker's 2017 blog posting laments the lack of using research for program improvement rather than just for the "cutting block." Few would disagree with Dr. Decker's point that research should be used

for program improvement; however, his Blog posting once again uses Mathematica's erroneous UB evaluation results as an example of what research can contribute to program improvement.

The article contains no acknowledgement of the errors in the Mathematica reports. Nor does it argue for more valid and improved research. It also does not acknowledge the limited level of college preparation services available for low-income and first-generation students. Rather, the article argues for more funding for research of the same type as conducted by his company, Mathematica. Dr. Decker's 2017 blog posting is a shorter, less aggressive form of his 2013 APPAM Presidential address (Decker 2013) but again omits any mention of the glaring errors revealed in a Quality Assurance Review conducted by the technical monitors of the final of the three Mathematica Upward Bound evaluation contracts within the U.S. Department of Education (ED).

As a lifelong contract researcher as well as a Technical Monitor for evaluation studies, I wish to share with you the specific evaluation lessons that I believe can be learned from my unsettling experience when I became employed within the U.S. Department of Education (ED) and served as the supervisor of a group responsible for the technical monitoring of a number of postsecondary evaluations. These studies included the final Mathematica contract for the long-running National Evaluation of Upward Bound. In this essay, I too, as did Dr. Decker, use the Mathematica Upward Bound study as an example. However, it is an example of the pitfalls that can happen to an evaluation when practitioner and stakeholder rights to a valid and transparent evaluation are not followed (see Joint Committee for Education Evaluation Standards, 2011). These lessons learned will hopefully inform both practitioners and researchers in the design, implementation, and analyses of future studies, in an era in which federal service programs are in serious jeopardy.

The details of the errors in the Mathematica report, along with fully-documented positive and substantial impacts found when these errors are addressed using NCES statistical standards, are reported in documents published by the Council for Opportunity in Education (COE) in 2009 and 2014 and in publications of researchers from the University of Wisconsin and Tulane University (Cahalan, 2009; Nathan, 2013; Cahalan and Goodwin, 2014; Harris, Nathan, Marksteiner, 2014). Links to these reports, and to COE's 2012 formal *Request for Correction* can be found at the following [site http://www.pellinstitute.org/publications-Upward_Bound_Compilation_of_Links.shtml](http://www.pellinstitute.org/publications-Upward_Bound_Compilation_of_Links.shtml).

Background Overview of the Study. The National Evaluation of Upward Bound was hailed as a gold standard longitudinal random assignment study when it was begun in the early 1990s. The study was designed to follow about 3,000 middle school and early high school students interested in Upward Bound, who were randomly selected to be either given the opportunity for UB participation in the study years or not (treatment or control group). The design called for following both groups through at least six years after scheduled high school graduation. The RFP for the study called for a nationally-representative random assignment study design that would allow for estimating the average national impact of the Upward Bound program. The study design also included a descriptive Project Survey and several qualitative case studies of projects to gain an overall picture of UB services provided. Projects were also asked to keep detailed service records for study participants.

Below, as I unfold the UB evaluation story, I list 16 interrelated lessons learned from the Mathematica National Evaluation of Upward Bound. While this essay is especially addressed to

researchers, it is also addressed to practitioners. I offer it in the hopes that the lessons learned will lead to new models for evaluation that emphasize respectful partnerships between practitioners and researchers.

Sixteen Lessons Learned From the Mathematica Upward Bound National Evaluation Story

1. ***Consult with All Stakeholders and Take Seriously the Feasibility Concerns of Practitioners Concerning What Will and Will Not be Feasible and Ethical.*** After the basic UB evaluation design had already been developed and at the time the study was first presented to the Upward Bound community, a number of concerns were raised by program practitioners who were required to participate. Practitioners expressed concern that the study would change the manner in which they interacted with potential participants, especially in recruitment, and also questioned whether the national study would yield valid and useful information for their differing local projects. A major concern had to do with the anticipated difficulty of actually implementing a random assignment study that would not result in IRB- prohibited denial of services concerns. There were also concerns expressed about the potential for control group contrast. Projects did not like the changes to the normal recruitment procedures they followed and specifically did not like the requirement that in the study years they needed to recruit at least twice the number of students than the anticipated openings and then purposely not give UB services to half of the students recruited. While project stakeholders were informed of the study requirements before implementation, they were not consulted on the basic study design. In large part these concerns by practitioners were ignored, and as will be seen below the accommodations made for stakeholders seem to have made the design even more problematic.
2. ***Do Not Over-Promise and Sacrifice What Might be Possible for That Which Is Not Possible.*** In order to make the study seem more useful to stakeholders, as the study planning proceeded, the sample design evolved to attempt to allow for estimating not just national impacts but the differences in impacts between different types of projects hosted at different types of colleges (2- or 4-year); public or private; rural or urban; and serving participants of different race/ethnicities; and projects of different sizes. It was this attempt to have both national estimates and estimates for many different types of projects that resulted in a highly-stratified first stage sample of 67 projects drawn from 47 strata, some of which had only one project. Moreover, due to the need to respect projects' existing patterns of recruitment, the final second stage student level sample was drawn from over 300 strata. In the final stage of inverse of the probability of selection weighting, one project, the single representative of a very large stratum, ended up carrying fully 26 percent of the weights. As we will see, as the UB evaluation story unfolds, the project sample design sacrificed possible overall estimates for a poor design incapable of producing either reliable national estimates or separate estimates for the various strata, and with serious unequal weighting.
3. ***Do Not Assume an Error-Free Study Implementation of a Random Assignment Design.*** The contractor, Mathematica, is known for its expertise in "random assignment" and presented the procedures of the UB evaluation as the gold standard. In fact, there are

very few studies that attempt weighting using inverse of probability of selection for a multi-stages stratified sample with a random assignment design. As noted above, projects were instructed to carry out recruitment in a special way in the study period. This consisted in recruiting at least twice the number of students as anticipated openings to be on what was called a “waiting list” for Upward Bound. Only students who completed a detailed “baseline survey” were allowed to be eligible for the “waiting list” to apply for openings in the Upward Bound program over the two recruitment study years. However, projects implemented the request to submit at least twice the number of baseline surveys completed by potential participants as anticipated openings in different ways. Some administered the baseline surveys to large numbers of students who might have been in Talent Search (another TRIO pre-college program often beginning in middle school) or recruited from a whole 8th or 9th grade class in a low-income target school. Other projects submitted far fewer baseline surveys from students who might have been closer in time to being what might be considered “formal applicants.” As the weighting at each stage was the inverse of the probability of selection and the second stage weighting was done relative to the number of baseline surveys submitted rather than the actual number of openings, this difference in the number of baseline surveys relative to actual openings contributed further to the unequal weighting and balance issues. To feasibly implement the random assignment stage at the UB project level, the different projects were allowed to establish their own project-specific strata. For example, they could establish separate strata with different probabilities of selection by gender, or for the different target high schools served. This involved dividing the so-called “waiting list” by the additional stratification criteria —so in the final combined stage, as noted there were over 300 strata. Within a given project students thus had different probabilities of selection and second stage weights. The control group consisted of all baseline survey completers who were not randomly selected to be given the UB opportunity as openings developed within the project strata. Thus, the control group and treatment group did not have equal actual numbers within a given project. Weight adjustments were used to equalize the final stage weights so that the control group and treatment group in each project has an equal sum of weights. In addition, about 10 percent of the baseline survey submitters were selected with certainty to be in the UB program, due to previous commitments or group dynamics reasons and were removed from the study with their weights redistributed among the study treatment cases in their strata.

4. ***Given Denial of Services Concerns in College Access, Do Not Assume that the Control Group in Practice Will Not Get Related Services.*** As openings for the UB program occurred over two summers, within the project strata, students were selected at random to be given the opportunity for program participation. Those not randomly selected became the control group. Subsequently, given student mobility and other factors, it was found through surveys and project records that about 25 percent of those selected to be given the UB opportunity did not report ever entering into Upward Bound, with some portion of these reporting they did not remember ever being given the opportunity. These students were considered in the UB Treatment Group in the “Intent to Treat (ITT)” analyses. Conversely, about 15 percent of the Control Group entered into Upward Bound or Upward Bound Math Science and were maintained in the Control Group. In addition and importantly, over a majority (60 percent) of the Control Group reported getting some form of other supplemental pre-college services in high school; most frequently, it was the less intensive Talent Search

(another TRIO program). Some UB practitioner staff reported that, in order not to be denying time-sensitive college access services, they actually tried to find alternative pre-college services for those in the control group who did not get randomly selected for the Upward Bound opportunity.

5. ***Reveal Any Issues Early—the Importance of Transparency.*** By the time I joined ED, three Mathematica reports had been published in 1996, 1999 and 2004. It was not until 2005, soon after I joined ED and after the study had been active since 1992, that our ED-PPSS division director, Dr. Goodwin, and I were alerted to some problems with the UB study. This alert first came from a new Mathematica staff person working on analyses and report writing of the Fourth Follow-up, who subsequently left the company. The staff person was concerned after having found that the “no overall impact results” were being driven by only one project of the 67—with the unusually large weight, accounting for 26 percent of the total sum of the weights. It was further reported to us that this project, when considered alone, had an unusually large number of applicants (baseline surveys submitted) and also had very large negative impacts. These negative impacts were strong enough to impact the overall positive impacts found when this project was omitted. Because this project was supposedly representing a very large number of both projects and baseline survey completers (considered applicants), this flawed design meant that the outcomes of some students from this project “waiting list” carried weights that were 40 times those of the lowest weighted students from other projects. The first three Mathematica UB evaluation reports, published over almost a 10-year period, did not reveal these serious sample design issues.
6. ***Investigate Data Results that Defy Logic.*** At the time, as ED Technical Monitors, we asked Mathematica to investigate why the heavily weighted project, when considered individually was having such large negative impacts on college going so that we could understand what the project was “doing wrong.” We could understand “no impact” results, but very large significant negative impacts did not seem plausible. Unfortunately, we did not get a response from Mathematica on this request. Instead we received a draft of the Fourth Follow-up report that, similar to the three previous Mathematica reports, did not reveal the unequal weighting issues, or that the lack of impact results were being driven by only one project. In the course of reviewing the Fourth Follow Up report as Technical Monitors, we were also struck by the very large positive significant impacts found for the sub-group of students that were classified as being of high academic risk at the start of the study. The results reported that there was an over 20 percentage point significant positive UB impact on college enrollment based on differences between the academically at-risk group treatment and the at-risk control group in college entrance. At the same time, it was reported that there were no overall impacts. We were also struck that, contrary to NCES statistical standards, the outcome measures had not been standardized by high school graduation year for a sample that spanned five years of scheduled high school graduation dates (given that the study recruited students from 8th grade to 11 grade and over two summer program rounds). When we asked Mathematica to standardize the outcome measures, Mathematica responded that they did not need to do this standardization given that there had been a random assignment that should have resulted in equal division between the treatment and control group on this distribution. However, ED monitoring staff balance checks later found that the control group was on average in a higher grade at the start of the study than the treatment group and that

when we standardized outcomes that the overall conclusions changed—even with the outlier heavily weighted project with 26 percent of the weight and negative individual impacts.

7. ***Pay Attention to Quality Review Results.*** Given the lack of response of Mathematica to our concerns, in 2006, as Technical Monitors, we requested the data files from Mathematica and began an internal ED-PPSS Quality Assurance (QA) review of all data files from the study. At first, we were primarily concerned that the study was relying solely on survey results and that the non-response issues were aggravated by the unequal weighting. Knowing that the administrative records from the federal student aid application and award data was available for the entire sample, we arranged to have the sample matched to the federal aid files and merged on to the UB study files for analyses. We also consulted other external statistical contractors and sent the Upward Bound data files to RTI, which held the ED-PPSS Statistical Technical Assistance contract at the time, for review and replication of our internal findings. The ED staff internal and RTI external quality reviews revealed that the study had serious sampling and non-sampling error issues that had not been revealed by Mathematica over the course of the more than a decade of contracts and after the publication of a major impact report in 2004. On the basis of using the federal aid files, ED-PPSS internal analyses, replicated by RTI, began to find positive overall impacts on postsecondary outcomes.
8. ***Make Sure there is an Actual Balance between the Treatment and Control Group through Balance Checks.*** The balance analysis done as part of the Quality Assurance Checks revealed that the negative impacts in the outlier weighted project reflected a failure of the implementation of the multi-stage random assignment rather than negative treatment impacts. The reason for random assignment is to ensure an equivalent treatment and control group on factors associated with the outcome or a balanced treatment and control group. The negative individual site impacts observed in the project carrying 26 percent of the weights were due not to program practices but to large differences between the treatment and control group on academic risk, educational expectations, and grade at baseline within this project. In what can only be a failed implementation of the random assignment, 80 percent of the high academic risk students from this project were in the treatment group and 20 percent in the control group. The control group from this project was also on average in a higher grade in high school at the start of the study. In fact, the treatment group from this project was contributing a large percentage of the overall weight for students of high academic risk in the overall sample, while the control group from this project was contributing a larger proportion of the students that were academically talented and had advanced degree expectations. Among the total sample, an average of 36 percent expected an advanced degree, compared with 56 percent in the control group from the outlier project, and 15 percent of the treatment group from this project. This explained the large positive impacts for the high academic risk sub-group in the analyses. When only those with high academic risk in the sample were considered, the high-performing, highly-weighted members of the control group from the unbalanced project was not included. Within the high academic risk sub-group, there was by definition a more balanced treatment and control group. Hence the very high UB sub-group positive results for academically at-risk students emerged (Cahalan 2009).

The large weights among this unbalanced project combined with the lack of treatment and control group balance led to an unacknowledged and uncontrolled bias in favor of the control group among the overall sample forming the basis of all of the published Mathematica national estimates. This issue combined with the lack of standardization of outcome measures by high school graduation year and other analysis and reporting errors were serious enough to impact the overall conclusions Mathematica reported concerning the Upward Bound project. Moreover, (contrary to what Mathematica had reported in 2004, continued to report in 2009, and was repeated by Dr. Decker in his 2013 APPAM Presidential Address) strong positive impacts for the overall sample, including the bias-introducing outlier project, were found for UB when these errors were addressed by such common statistical standards requirements as standardizing the postsecondary outcome measures by scheduled high school graduation date.

9. *Check the First-Stage Sample for Atypical Cases that Cannot Represent Their Strata before Proceeding and Check the Eligibility of those Considered “Applicants”*. To protect confidentiality, the data files delivered to ED in 2006 and 2007 for QA review did not reveal the identity of the UB projects in the sample. In the course of reviewing the study, Dr. James Chromy, the RTI statistician we consulted, asked us to request a copy of the sampling frame from Mathematica in order to gain a better understanding of the sample design characteristics. We made this request of Mathematica in early 2007; however, Mathematica indicated that they did not have an electronic version of the sampling frame and could not locate the paper version for nine months. Consequently, this frame was not delivered to ED until a few weeks before the final contract ended in late 2007. Until this time, no one at ED or RTI was aware of the identity of any of the study projects. A review of the sampling frame in late 2007, (something that should have been done by Mathematica in the 1990s, before the study began), revealed significant facts that explained the strangeness of the results we were observing. In a flawed design, the project carrying 26 percent of the weight was selected to be the **single** project representing the UB projects hosted at 4-year public, urban, non-majority Hispanic institutions, and average-sized UB project. In other words, this single project was representing a lot of UB projects. This, combined with the large number of baseline surveys submitted, resulted in its very large outlier weights. To compound this problem, when we researched this project’s characteristics, we found that unfortunately it was very atypical for the 4-year public stratum for which it was supposedly the sole representative. It was housed at a former private junior college serving minority youth from minority vocational high schools that historically awarded postsecondary trade certificates. The junior college had been taken over by a large public city college system and hence its 4-year public formal classification in IPEDS. *This accounted for the fact that the only positive overall impacts that Mathematica reported were for the award of certificates.* Dr. Chromy and the other external reviewers noted that having only one atypical project representing the largest stratum of 4-year bachelor’s degree granting projects could not produce robust estimates for that stratum or for the whole, and that this was especially problematic for any estimates of bachelor’s degree attainment. Checks should have been done of the design, and on the actual randomly drawn first stage project sample prior to beginning the study to ensure that the cases drawn were not “atypical” for the strata they were representing. In this case, Dr. Chromy noted that the sample should have been re-drawn prior to beginning the study.

The representation issues of this heavily-weighted project were compounded by the actual non-equivalence of the treatment and control group in this project. For unclear reasons, the implementation of the random assignment in this outlier project appears to have been flawed. The Treatment Group resembled on average the types of vocational students historically served by this atypical UB program, while the control group on average resembled the types of students most frequently served by Upward Bound Math Science (UBMS)--in a higher grade at entrance, more academically talented, and with higher advanced degree expectations at baseline. Indeed it is unclear whether these control group members were actually completing the “baseline survey” because they were interested in the sampled particular Regular Upward Bound program with ties to vocational certificates, or actually had more of an interest in a new UBMS program in the region, (not in the sample) in which some of the control group from this project reported participating. These “baseline survey completers” when weighted constituted over one-quarter of overall sample control group and were probably not serious applicants for the (at that time) vocational certificate-focused UB project.

10. ***Understand that Response and Coverage Issues Are Important; Follow NCES Standards for Response and Coverage; Note that Unequal Weighting Can Make the Non-Response Issues More Significant.*** One of the most problematic aspects of the Mathematica analyses in the final 5th follow-up 2009 report was the ignoring of NCES coverage standards and the use of the National Student Clearinghouse (NSC) at a time when the coverage by institutions reporting to the NSC was about 27 percent for enrollment and when NSC was not yet collecting degree information. This coverage issue was especially problematic for less than bachelor’s degree-granting postsecondary institutions and was far less than would meet NCES standards for coverage. In the 5th and final report, survey non responders who were not found on the NSC data base were assumed to have not entered into postsecondary education or not to have obtained a postsecondary credential. This issue was aggravated by the unequal weights. For example, some sample members had weights of 158, whereas the lowest-weighted sample member carried a weight of 4. This was especially problematic as the heavily-weighted outlier project was not reporting to the NSC in the most applicable period when the students would be entering and completing postsecondary credentials.
11. ***Make Sure that the Conduct of the Study Is Integrated.*** The Mathematica formal structure at the time provided for separate groups responsible for various aspects of a study, the statistical staff, data collection staff, qualitative case study staff, and econometric staff. Given the very long time period covered by the study there was also considerable turnover of staff. It is therefore not known if the project leadership or analysts of the various groups knew that the highly-weighted, vocationally-focused UB project was supposed to be the only representative of a large 4-year public hosted stratum, or that the treatment and control group were so unbalanced in this site. It is known that the separate significant “negative” impacts of this site were observed by 2005. We also do not know how many of the issues revealed in the ED-QA review were known to junior and mid-level Mathematica staff working on the study, at various times over the 15-year study. It is not known why the study error issues and the unequal weighting were not included in the reports through the third follow up in 2004. It was not until 2005/06 that these issues were called to ED’s attention and the full extent of

the issues was not revealed at this time. The seriousness of the errors became known by ED only gradually as ED-PPSS and external reviewers examined the data files and the sampling frame for themselves between 2006 and 2008. The federal aid matches were done in 2006 and as noted the sampling frame was not delivered to ED-PPSS until late 2007 when the contract was essentially over. It was not until the contract was officially over in 2007- 2008 that ED-PPSS internal staff worked to standardize results by high school graduation year and with this mitigation found substantial and significant positive impacts with and without the outlier project in college entrance, award of federal aid, award of any postsecondary degree, but (as might be expected given the unequal composition of the treatment and control group) not for bachelor's degree receipt. The outlier project was not representative of its 4-year stratum and had seriously unequal treatment and control groups that introduced bias in favor of the control group for bachelor's degree receipt that given the large weights was large enough to override the clear large positive impacts on bachelor's receipt when the unrepresentative and bias introducing project was removed from the analysis. When the outlier project was included based on non-response adjusted survey results there were large impacts on the award of any postsecondary credential due to the large impacts for certificate receipt.

12. ***Respect Stakeholder Rights to a Transparent Evaluation with Warranted Conclusions.*** The results of the ED-PPSS technical monitor's analyses were fully shared with Mathematica over the period of 2006 to 2009 as they became known—however, they were repeatedly disregarded by Mathematica project staff. Mathematica's leadership in formal letters accused the ED-PPSS technical monitors as overstepping and acting as advocates for Upward Bound. Memos to Mathematica concerning the data quality review results and errors identified written by myself and also by Dr. David Goodwin, the original UB study project monitor and the head of the ED-PPSS Division responsible for the study in 2008, were repeatedly disregarded by Mathematica project staff and leadership. The repeated failure of Mathematica to reveal the issues with the study to ED and the stakeholders over a period of more than a decade, and their failure, to this current time in 2018 to acknowledge the results of the PPSS QA analyses finding positive impacts, constitutes a serious negligence of the trust of that must be present in all evaluation contracts. This behavior also constituted a serious violation of trust to the Upward Bound and TRIO community. Stakeholders to evaluations have a right to a transparent and ethical evaluation in which only warranted conclusions are put forth concerning their effectiveness.
13. ***Acknowledge All Findings, Especially if They Have Different Conclusions in Transparent Reporting.*** The statistically significant and educationally meaningful positive results PPSS internal staff and RTI external quality review consultants had found, and which had been fully shared with Mathematica by 2008, went unacknowledged in the 2009 published Mathematica final report. When ED staff members applied NCES standards to the analyses (such as standardizing outcome measures, and respecting coverage standards for use of the NSC data) significant and substantial Intent to Treat (ITT) and Treatment on the Treated (TOT) positive impacts were observed for the entire sample, with larger impacts when the problematic bias introducing non-equivalent treatment and control group project was excluded. The final Mathematica report conclusions ignored their own analyses (presented in an appendix to their final report) that found a substantial and significant 12

percentage point-effect size for the award of any postsecondary degree based on survey data adjusted for non-response by the end of the study for the entire sample. This finding was found by both the ED-PPSS analyses and the Mathematica analyses, but in Mathematica's case it was kept buried in an appendix to the Mathematica report and ignored in the text discussion in the disseminated Mathematica final report conclusions. *The often-quoted Mathematica conclusion (Seftor et.al. 2009; Haskins and Rouse 2013, Decker 2013) that UB had no discernible impact on postsecondary entrance or degrees earned is clearly incorrect.* The ED-PPSS analyses also found that omitting the atypical non-representative UB sampled project with an extreme weights and an unbalanced treatment and control group, the UB participants were 3.3 times as likely to obtain a bachelor's degree in six years compared with study participants who received no supplemental college access services (Cahalan and Goodwin 2014).

14. ***Don't Underestimate the Influence of Political Appointees in the Review Process and in Deciding Which Reports Get Published.*** The final Mathematica report was published by ED in the last week of the Bush Administration (January 2009) only upon direct orders from the departing political appointee staff. It was published over a year after the final contract formally ended in late 2007, and over the clear written formal objections of ED-Policy and Programming Studies Services (PPSS) career technical monitoring staff. It was also published after a formal "disapproval to publish" rating in the final Executive Secretary's (Ex. Sec) review from the Office of Postsecondary Education (OPE), out of whose appropriation the \$14 million dollar study was funded. Its actual formal classification in the ED review process at the time it was published was "Returned to ED-PPSS for re-write." ED's formal publication review procedures were circumvented, and ED-PPSS was ordered in early January 2009 to get the report out by the end of the Bush Administration. While the ED-PPSS Technical Monitoring staff was not given details of the final negotiations with Mathematica, which were conducted in secret by the departing political staff, the reports were published with reported acquiescence and facilitation of the Institute for Education Sciences (IES). At the time, IES had a former Mathematica Vice President in a leadership position. In fact, in defiance of Mathematica's formal contractual agreements with ED, Mathematica had already published the Mathematica draft UB Evaluation final report on its own website in December 2008. After the Mathematica report was officially published by ED in 2009, PPSS attempted to get the results of their Quality Assurance Review also published by ED; however the publication of the QA results was blocked. Subsequently, ED-PPSS leadership gave permission to have COE publish the PPSS QA results in late 2009 (Cahalan 2009).

In a further "suppression of transparency" after both Dr. Goodwin (the division director of the unit responsible for the study) and I had left the Department of Education, the UB study files were ordered withdrawn from availability for restricted release to other researchers. The files had been stripped of identifiers under a separate contract by RTI and made available under restricted release to other researchers in early 2011. The order to withdraw the data files came from the same former Mathematica senior staff person who had by this time become in charge of PPSS. This withdrawal of the data files was ordered in 2012, after having been released to only two sets of external researchers (University of Wisconsin and COE's Pell Institute). The researchers from the University of Wisconsin subsequently

replicated the internal ED staff quality assurance results, also finding positive results for the Upward Bound programs.

The history of the Upward Bound evaluation shows how difficult it is for official Technical Monitors to do anything but rubber stamp findings by a respected, so-called “objective independent contractor.” The Bush Administration’s political appointees were looking for evidence that the federal TRIO programs were ineffective. In fact, the Assistant Secretary’s representative to whom PPSS reported openly joked in regularly scheduled meetings with our PPSS group that my supervisors should stop me from working on the UB project. After raising concerns about the Upward Bound study, I experienced the classic responses to a “whistleblower” within the ED bureaucracy. As noted, after a review of the UB data, Dr. Goodwin, the original UB study Technical Monitor in the 1990s and then the ED-PPSS Division Director, also wrote a detailed memo to Mathematica leadership expressing his view that the UB study was “seriously flawed.” However, he too was ignored by Mathematica, IES, and the ED political leadership.

15. ***In the Current Climate of Government, if a Study Can Be Used to Cut Services, It Will Be Used.*** Among some political operatives and researchers, it is the working hypothesis that government programs of the civil rights and War on Poverty era do not work, do not target the right persons, or at best are not worth the resources put into them. In 2011, Grover T. Whitehurst, former IES director, testified to Congress that Upward Bound and Head Start and similar programs had not been shown to be effective. The often-quoted Haskins and Rouse (2013) Brookings policy brief based on the Mathematica findings generalized to calling most existing college access programs “ineffective” and called for radical restructuring of the service programs into research demonstration evaluation projects. In November 2013, Paul Decker, President of Mathematica, went so far in his APPAM Presidential speech as to call those he labeled the “Youth Advocacy Community” as being guilty of “misdemeanors” and “felonies” for their legitimate expressions of concern relative to the proposed design for a new Upward Bound evaluation and for their successful lobbying in Congress for language in the Higher Education Act of 2008 to require that future federal evaluation studies in TRIO meet IRB requirements. More recently again in 2017, Paul Decker arrogantly used the Upward Bound results to argue that college access programs have not shown “clear evidence of effectiveness.” In a circular process, he shamelessly cites the Haskins and Rouse proposals, which were justified by using the erroneous Mathematica flawed UB results, to argue for more research of the type conducted by his company on how to make the so-called “ineffectual” programs more effective.

16. ***Correct Mistakes, Do Not Cover Them Up.*** Several people have asked me why Mathematica, a well-respected firm—holder of the What Works Clearinghouse (WWC) contract--would be so unwilling to admit mistakes. I believe that part of the issue is that in the very competitive contract acquisition system it is very easy to overpromise and also to ignore basic questions about the validity and robustness of the proposed design to address the complex questions posed by the government. Once contractors have published high-profile study results, the perceived need to protect their own organizational reputation can make it very difficult to admit to themselves and the public, that they may have made mistakes. In this case, practitioners and other stakeholders and ED-PPSS technical monitoring staff who

raised questions were portrayed by Mathematica as being advocates who were anti-data, anti-random assignment, and ignorant of research methods.

Hopefully the “Upward Bound evaluation story” is an “outlier” in the history of evaluation research. It was a “perfect storm” example of a complex, long-running evaluation that “got it wrong” combined with political actors bent on zero funding the program and who welcomed any findings that would support the budget policies they were advocating. The Mathematica contractor, who also was the WWC contractor, refused to consider that they might have made mistakes and the leadership and staff “dug in their heels” against acknowledging the findings of the Quality Assurance Review. The contractor, with a strong reputation, also had powerful former staff allies in leadership positions in IES and later in PPSS. Given the current Trump Administration’s proposals to cut program services, we ask the question, will there be more cases such as the Upward Bound evaluation? How can we avoid the mistakes of the Upward Bound evaluation? How can we foster feasible, ethical, transparent, accurate, and useful evaluations that are not harmful to those we are serving? Who is looking out for the rights of the stakeholders to the evaluations, especially in an era in which social service programs are targets for budget cutting or elimination?

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CHAPTER II

HOW TO MAKE COLLABORATION WORK

RELATIONSHIP AND TRUST-BUILDING BETWEEN RESEARCHERS AND PRACTITIONERS: TOWARD EDUCATIONAL EQUITY FOR UNDERSERVED POPULATIONS

BY JUDY MARQUEZ KIYAMA

Introduction

Much has been written about the importance of collaborative efforts between faculty and student affairs practitioners (e.g. Banta & Kuh, 1998; Dale & Drake, 2005; Kezar, 2003; Pace, Blumreich, & Merkle, 2006). Nonetheless, the topic remains at the forefront of institutional efforts, scholarly publications (see Dale & Drake, 2005; Magolda, 2005) and higher education and student affairs courses (e.g. Espino, 2012). Scholars push collaborations that are systemic and institutionalized in an effort to increase student success and retention (Dale & Drake, 2005) and research indicates that such collaborations do in fact, enhance “the quality of life for students” (Magolda, 2005, p. 16). In this essay, I focus specifically on the collaborative role between researchers and practitioners, with particular efforts that address relationship building to enhance educational equity for underserved populations. Researchers and practitioners often work towards common goals when considering access and success efforts for traditionally underserved populations (Kiyama, Lee, Rhoades, 2012), yet they remain positioned in dichotomous roles, separated by organizational structures (Pace, Blumreich, & Merkle, 2006), with faculty responsible for student learning and research, and practitioners responsible for student support (Dale & Drake, 2005).

Challenges Facing Collaboration

Authentic collaborations between researchers and practitioners, beyond infrequent meetings and committee work, are rare and when they do occur, can be met with organizational, political, financial, and ideological challenges. These challenges are helpful to understand within an organizational culture framework (Lee & Kiyama, 2005). Organizational culture is typically characterized as an interconnected web (Geertz, 1973) with shared norms, values, and beliefs

Abstract

Researchers and practitioners often work towards common goals when considering access and success efforts for traditionally underserved populations. Yet, collaborations across these roles are rare and when they do occur, can be met with organizational, political, financial, and ideological challenges. This essay will explore some of these challenges and focus particular attention on the benefits of such collaborations when relationships are built on trust and reciprocity.

that are often taken for granted (Bolman & Deal, 1997; Deal & Kennedy, 1983; Lee, 2007; Lee & Kiyama, 2005; Morgan, 1986). Therefore, culture can also be understood differently by the various groups within an organization, in this case – researchers and practitioners (Lee & Kiyama, 2005). Differing organizational structures, or organizational fragmentation can be a barrier to collaboration, as specialization among faculty and staff and a history of separation between various units is likely to exist (Kezar, 2006). Organizational structure can also create competition for resources (financial and human resources) and differences in leadership ideologies and expectations (Pace, Blumreich, & Merkle, 2006). Because these subcultures within organizations establish different values, skills, and separation (physically and hierarchically), challenges in cross-departmental collaborations exist (Dale & Drake, 2005; Kezar, 2003; Lee & Kiyama, 2005). The separation that results from different departmental and disciplinary boundaries can undermine potential collaborations (Love, Kuh, MacKay, & Hardy, 1993).

Researcher and practitioner partnerships are also met with challenges around management structures to support the collaboration, group and individual dynamics, a balance between building community or professional purpose, and the knowledge base of those assuming leadership for the partnership (Amey & Brown, 2005; Bernacchio, Ross, Washburn, Whitney, & Wood, 2007). Limited time from faculty and staff, unclear goals for the collaboration, and a lack of senior leadership support have also been noted as barriers to successful collaborations (Kezar, 2001). Even with the organizational and cultural challenges present when attempting to establish partnerships between researchers and practitioners, successful collaborations do exist.

Developing the Collaboration

The literature on researcher and practitioner collaborations often identifies pragmatic tips or strategies focused on organizational culture and leadership. For example, Whitt and colleagues (2008) analyzed collaborations across 18 different institutions and suggest the following recommendations: partnerships should advance the institutional mission; demonstrate learning-oriented environments; promote relationship building; recognize, understand, and value institutional culture; value and implement assessment; be good stewards of resources, and promote diverse opportunities for leadership. Specific to the focus of this essay, when considering relationship building, Whitt et al (2008) state that “effective partnerships grow out of existing relationships between and among academic and student affairs professionals” (p. 241). These relationships are built on shared values and often cross the organizational boundaries often noted as challenges. Their findings suggest that relationships are one key to the success of these collaborations (Whitt et al., 2008).

Other factors or “mediating tools” of collaboration include shared understanding of institutional missions and organizational culture (Amey & Brown, 2005; Kezar, 2005). For example, institution missions or philosophies are important to integrate into the culture of the institution through events like public forums or ongoing initiatives like student engagement (Kezar, 2005; Kezar, 2006). Organizational structures can be redesigned to better support collaborations between researchers and practitioners (Kezar, 2005; Kezar, 2006). Kezar (2003) specifically notes the importance of structural strategies like formal organizational rules and planning processes, and cultural strategies like dialogue and common vision. Shared dialogue and

language and ritualizing norms appear regularly as important tools to developing interdisciplinary and cross-departmental collaborations (Amey & Brown, 2005; Kezar, 2003).

There is often an assumption that collaborations are best initiated from a top-down approach or at least with senior leadership support in an effort to institutionalize policies and practices that sustain the outcomes desired from such collaborations (Harris, 2010; Kezar, 2001; Kiyama, Lee, & Rhoades, 2012). However, as Whitt et al. (2008) note, some of the most effective partnerships develop not from a top-down approach, but from preexisting shared values. This is discussed further in the next section.

Partnership Principles Informed by Community, Activism, and Agency

Collaborations can be built upon relational networks that are activist in nature, cut across different department cultures and administrative silos, and work towards organizational, equity-based change (Kiyama, Lee, & Rhoades, 2012). Kiyama and colleagues term these networks “critical agency networks.” The model of critical agency networks was suggested after an extensive study of faculty, researchers, student affairs practitioners, and academic administrators coming together for the creation and facilitation of a college outreach program serving low-income and families of color. The collaboration offered few tangible rewards; that is, no monetary compensation was offered and many faculty members did not even list the participation as a “service.” The collaboration was an outgrowth of previously formed relationships, developed out of common social justice and equity-based values (Kiyama, Lee, Rhoades, 2012).

Another example of a critical agency network coming together is seen in Harris and Kiyama’s (2015) partnership with a local school district. The project was initiated by the president of a local community organization serving Latina/o students and families. The president issued a call to action after consistently high drop-out rates for Latina/o students in the local school district. What followed was the assembling of school district personnel, higher education professionals, researchers, faculty, students, and parents who engaged in relationship building to develop the trust necessary to collectively carry out the project. While the project originated as a research effort, it has led to both programmatic and curricular efforts as well. The goal of this project continues to be structural changes leading to opportunities for Latina/o students as they transition through high school and into higher education (Harris & Kiyama, 2015).

These particular examples are reflective of community-driven or grassroots collaborations (Kiyama, Lee, & Rhoades, 2012). These grassroots efforts are illustrative of bottom-up networks organizing around a common issue (Kezar & Lester, 2009). Important in Kezar and Lester’s (2005) research is the role that virtual and external networks (sometimes within community contexts) can play in establishing these grassroots collaborations that originate on college campuses. I turn briefly to a discussion on community-engaged work, the principles of which not only highlight the resources found in external and community networks, but offer guidance for establishing authentic relationships across institutional contexts as well.

Community-engaged collaborations, known often as community-based research, are defined as “a partnership of students, faculty, and community members who collaboratively engage in

research with the purpose of solving a pressing community problem or effecting social change” (Strand, Marullo, Cutforth, Stoecker, & Donohue, 2003, p. 3). If we understand “community” broadly to also encompass partnerships between researchers and practitioners, we see that the principles of community-based research are quite useful. Specifically, partners work together to design and implement projects, community (partner) knowledge is valued, and works toward a shared understanding to address issues (Israel, Eng, Schulz, & Parker, 2005; Polanyi & Cockburn, 2003). Key to these partnerships is the component of “with,” which encompasses developing a collective understanding at each stage of the project, rather than one partner taking over the power role as the leader (Israel et al., 2005; Polanyi & Cockburn, 2003; Strand et al., 2003). Magolda (2005) also suggests that researcher and practitioner collaborations are possible and beneficial when there is shared commitment and power between partners, rather than researchers or faculty assuming the lead role. Shared leadership and power thus recognizes the multiple organizational frames and various forms of knowledge that each constituent brings to the partnership (Kiyama, Lee, & Rhoades, 2012; Magolda, 2005).

Interestingly, Whitt et al., (2008) begin their article with a quote from the American Association of Higher Education which states, “People collaborate when the job they face is too big, too urgent, or requires too much knowledge from one person or group to do alone.” (p. 235). However, my own research and the examples shared above suggest otherwise. Underlying all of these examples and principles offered above are common threads, focused on issues of social justice and equity that bring researchers and practitioners to collaborative partnerships with long-term goals of systemic change. They are not brought together because the job they face is too big for one particular person; they are brought together because of a shared notion of critical agency--put another way, a shared commitment to advancing equitable opportunities for underserved students and communities.

Values of Relationship and Trust Building

Thus, in drawing from ideas embedded within developing critical agency networks (Kiyama, Lee, & Rhoades, 2012) and principles for community-engaged work (Strand et al., 2003), the following are noted as important values of partnerships based on relationship and trust-building between researchers and practitioners.

1. ***Partnerships develop out of previously formed relationships.*** As was evident in both the Whitt et al., (2008) study and the Kiyama, Lee, and Rhoades (2012) study, authentic partnerships between researchers and practitioners are likely to develop when previously formed relationships already exist. Often, these relationships are built upon the values noted below.
2. ***Dialogues, open and frequent communication, and authentic conversations.*** These conversations should include commitment to shared understanding about the sociohistorical nuances of the issue at hand, the sociocultural and moral discourses that inform the issue, and the organizational politics each partner faces in further addressing the issue (Harris & Kiyama, 2015; Magolda, 2005).

3. ***Reciprocal relationships.*** Reciprocity and mutually beneficial social exchanges within relationship building has been noted as a key component within social capital frameworks (Coleman, 1988), sociocultural frameworks like funds of knowledge (Moll, Amanti, Neff, & González, 1992), and within community-engaged work (Strand et al., 2003). It is not surprising then, to suggest that reciprocal relationships will also strengthen the partnerships formed between researchers and practitioners (Magolda, 2005), particularly when addressing issues of educational inequities.
4. ***Relationships built on critical agency.*** Relationships that are built upon critical agency (Baez, 2000) share agendas that are activist in nature with movement towards a common social justice and equity-based goal. These partnerships are often created with and alongside members of the diverse communities such initiatives are meant to serve. Thus, these relationships can include researchers and practitioners internal to the institution and community members (i.e. students, families, non-profit organizations) that are also external to the institution (Kezar, 2006).
5. ***Community-driven or grassroots efforts.*** Building off of the fourth point above, collaborations can start with members of the community. Grassroots efforts then drive the relationship and collaborative development by identifying and informing the efforts. (Israel et al., 2005; Kezar & Lester, 2009; Polanyi & Cockburn, 2003; Strand et al., 2003).

It may appear that divisive silos orchestrated by organizational departments, values, and disciplines hinder partnerships between researchers and practitioners. Yet, perhaps one of the most important points of this essay is that authentic relationships between multiple constituents, built on shared values and trust, can overcome such organizational boundaries in an effort to establish equitable opportunities for students. In an academic environment where results, numbers, and productivity prevails; it is necessary to recognize that systemic change takes time. Investing in the partnerships that will lead to such change remain worth the effort.

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BUILDING TRUST BETWEEN RESEARCHERS AND PRACTITIONERS THROUGH RESEARCH COLLABORATIONS

BY KRISTAN VENEGAS

Abstract

The goal of this essay is to explore ways that researchers and practitioners can work together to build trust in research collaborations. The essay considers building trust through research in three ways: (1) how researchers can work with practitioners to develop meaningful research designs; (2) how researchers and practitioners can collaborate around the technical aspects of research, including getting access to quantitative datasets and getting into qualitative fieldwork settings, and (3) how practitioners can work with researchers to make strategic improvements based on research findings.

Introduction

Trust plays a key role in research collaborations. As Kramer and Tyler (1996) suggest, trust impacts the key social functions including cooperation, coordination, and performance. Their work focuses on developing trust within organizations. In many ways, developing a collaborative research partnership is like developing a new organization. Informal and formal cultures are developed. Structures for leadership and processes for communication, the creation of mutual goals and implementation are established. Bolman and Deal's (2011) descriptions of organizational culture can apply here. Like organizational cultures, research collaborations can take on one or more of the four organizational frames that Bolman and Deal have identified --- symbolic, political, human resource, and structural organizational frames. A *symbolic organization* is one that functions largely based on the prevalence of heroes, metaphors, stories, myths, ritual, and ceremonies. *Political structures* are dominated by power, resources, competition and related networks. *Human resource lead organizations* focus on people and human nature in relation to the organization. Finally, *structural organizations* rely on goals, outcomes, tasks, and functions. It's possible to see how these different frameworks can shape or reshape research collaborations operating in different settings.

When I look back on the various researcher and practitioner relationships that I have built over the last decade or more, I can easily recall what a difference it makes on a research project when it is possible to build trust between myself, my research team and the partner organizations. I've learned that trust is slowly gained and even more easily lost. I can see how the organizational culture supported or constrained our work on different projects. For example, I have worked in large school districts that are so centralized and structural that even obtaining permission to conduct research has become a months-long process. Of course,

sometimes these things are a matter of structure, but other times they really are a matter of trust. Do practitioners “trust” the research and researchers enough to give access formally and informally for a successful project? Authentic collaborations are key.

When working with large organizations and/or in large research teams, trust can be even more difficult to obtain. If trust is about relationships, the more relationships there are to manage, the more difficult it is to maintain clear communication. In this essay, I reflect on (1) how researchers can work with practitioners to develop meaningful research designs and (2) how researchers and practitioners can collaborate around the technical aspects of research. The examples that I use are based on experiences in qualitative and mixed methods studies. As a qualitative researcher, I cannot offer informed insight on how singularly quantitative studies might be negotiated. In this essay, I draw from my own experience, as well as from course discussions and other experiences in policy and practice audiences. It’s also important to note that I worked as a student affairs practitioner for a number of years before becoming a researcher, so the challenges of being a practitioner were once a constant part of my own reality. I continue to teach in a program that trains student affairs, advising, and outreach professionals, so I continue to hear about and think through practitioner realities. My research agenda focuses on college access and financial aid for low-income students and students of color, so most of my work is built in collaboration with high schools, colleges and universities, and non-profit organizations that provide direct service to these student populations.

Developing Meaningful Research Designs

A research design that is uninformed by literature is considered to be weak. Why shouldn’t the same thing also be said about designs in educational research that are not distinctly practical in context or grounded in practice? Some of the most creative and effective research designs that I have been a part of are the result of a process that can be described as follows. First, researchers develop a set of research questions and a design to answer those questions. This typically includes a number of tools for gathering data, which supported by previous research and a conceptual or theoretical framework. Then, if the research team does not already have a pre-selected site or set of sites in mind, they might begin to think about with whom and how it might be possible to develop a partnership to answer these questions and support this research design. A reasonable next step is that the researcher and the research site come together to make sure that the design is a good fit. There are usually adjustments to the design, in an attempt to further maximize on the researchable opportunities within the collaboration. Ideally, the researchers and the practitioner collaborators agree on the design, so much so that a true collaboration is formed.

Of course, the steps that I have described above are idealistic. These prescribed steps assume that:

- the researchers are willing to take the time to engage in a thorough understanding of the context of the research organization;
- the practitioner-based organization is truly open to and can accommodate a research collaboration;

- the key decision maker from each organization will make sure that both researchers and practitioners are around the table, and finally,
- when decisions are made, they will be implemented in a way that honors the knowledge and expertise of everyone.

This last assumption might be the most important one of them all, because each of these steps assumes a level of trust either has been or will be established. I often think back to a conversation that I had with a practitioner about a set of focus groups that we had conducted with students and parents. We were collaborating on a project as part of a college preparation program that served at-risk youth in a low-income high school. My research team was the 3rd research team to examine this program in less than five years. Their previous experiences with focus groups had soured them to the idea. The practitioners on site had been unfairly burdened to assist with participant selection and other research-related details in the past. But because my colleagues and I had attended to our focus groups with attention to detail and made sure that we recruited our own participants, and kept the practitioner team up to date on our progress along the way, we had changed the mind of this individual. She shared that the experience was “owned by your team, I was able to sit back, watch them happen, and enjoy the idea of seeing my students and parent participate.” The individual was excited to see our data and welcomed us to continue to come to campus over the next two years of the project. This practitioner wanted a more hands-off approach to participating in the research project, but still wanted to make sure that her service population was excited but also protected throughout the research project. As one of her co-workers shared, “These kids have enough asked of them already, and so we do we as program staff; we need to protect our time and their [the students] paths.”

Trust Means Risk

What does it mean to take risks in these organizations, especially in ones where the primary clients themselves might be labeled as “at-risk”? The conversation that I mentioned above exemplifies the awareness that I must have with working within the particular research area that I have chosen to pursue. Though arguably, any population could be at some level of risk when they share their opinions as part of research that seeks to evaluate oneself and could lead to change. Given this delicate web of risk, how can we include practitioners and their service populations as equal partners in our work?

As noted in this section, one way is to lay the groundwork for a solid collaboration is giving the practitioner-collaborators opportunities to actively engage in the discussion and planning of a research design. I’ve outlined some of the overarching steps and given an example of implementation. I conclude this section with a short list of recommendations:

1. Be prepared to explain methodological approaches and tools, as well as confidentiality and duty to report. These issues will come up in the discussion on technical collaborations, but these key items should be iterated throughout the research process as a means of informing the research site, but also as part of honoring the population that you will study.

2. Initiate conversations with the practitioners are who are closest to being “on ground” with the population that you will study. If you are studying high school students, try to meet with teachers and counselors and/or observe them at work. If possible, ask them how they might engage in answering the questions that you are studying.
3. Meet with administrators who work with your study population. They will offer connected, but more distal perceptions about what should be studied and possibly what data-gathering approaches might or might not work at this site and the rationale for those recommendations.
4. There may be cases in which you will be at a site with active and or emerging researchers. Given that we are in the field of education, it’s not unlikely that one or more individuals on site are seeking a master’s or doctoral degree. Again, it’s not likely that they will be leading the work, but they are likely to want to have more engaged conversations about the design.

Either way, it’s crucial *to ask for collaboration*. You might not receive it, but at least you will have given the organization a chance to authentically participate. At some points in writing this essay, I’m feeling a little preachy, and I don’t like the way that this feels, but it seems like it’s worth it to lay out these basic recommendations. I once worked at a high school site studying college preparation and college access for over a year. I met with the guidance counselors at the beginning of the year and had in-depth discussions about my research questions and research design. They had little feedback for the research design except to say that I need to be aware of the nuances of their student population. This was valuable advice and I made sure to use it. I sent updates about the work throughout the next nine months on that campus. I never received acknowledgement or a response. It wasn’t until my 2nd to last email when I asked to meet to share results that I received a response from the guidance team to share my preliminary findings. During that meeting, a counselor shared that he had stopped reading my emails closely after the first few because he “knew the research plan and didn’t have time to check in.” He sort of apologized, but again because he knew the plan, he felt informed enough to trust me for a long stretch of the project without checking in. In the next section, I turn to a discussion of how researchers and practitioners can work together on the technical aspects of research.

Collaborating on the Technical Aspects of Research

I once worked on a short-term project with a fellow researcher who was about two years ahead of me in the field and thought that because of that I should be considered “junior” to her. She consistently ignored my ideas and would give me the “grunt work” administrative tasks to lead while she headed the more creative and analytical processes. Now, why I allowed her to do that is one issue, but the end goal for me was that I did not want to work with her again. I’ve seen these kinds of things happen between practitioners and researchers—it’s not a good thing. I tell this story here because in this section, when I write about the “technical” aspects of research, I want to be clear that this part of a collaborative relationship does not mean that practitioners order the coffee and cookies, while the researcher comes into interview the program administration. There are layers of problems with these kinds of uneven collaborations, but I want to highlight a few examples of technical collaborations that have been successful.

I am currently on a project that examines a state-wide set of learning communities. Our qualitative research team meets regularly with the program directors at each site. The research team is able to respond to any questions that the program directors might have. We are able to gather advice from them and ask clarifying questions about upcoming site visits. The research team consistently uses their advice to inform the next steps in our data collection. We may observe additional events or review additional documents because of their valuable expertise. Their advice truly guides our work.

In another recent project, I worked with a non-profit organization on a short term, small-scale evaluation of their scholarship program that was administered through multiple sites. The protocol for the evaluation was developed in collaboration with the non-profit organization and pilot tested, but I still felt like something fell short within the protocols and that I might be missing a key piece of the puzzle. Because this was a short term, small-scale project, there was not a lot of time to do additional work in preparation for my interviews with the scholarship program administrators. During the interviews, one of the most powerful questions from the interview protocol was “is there anything about the [scholarship] program that I didn’t ask you, but you think I should know more about?” This one question empowered the administrators to share a wealth of information about their concerns, hopes, and ideas about the value and possible improvements to increase the purchasing power of the scholarship awards.

The examples noted here may seem like small adjustments or actions, but they give voice and power to the practitioners. Some additional considerations are noted below:

1. Ask for advice and information, but don’t assign tasks. When working in research settings, it’s likely that the individuals that you are collaborating with already have full work commitments. Expecting them to do additional work is not a necessary element of collaboration.
2. Don’t expect that your practitioner collaborators have research experience. They may have important thoughts on the context of an organization, which can lend itself to the design, they may also understand how certain aspects of research works, but that doesn’t mean that they will understand the technical aspects of research, nor should they be expected to assist you in conducting research. In other words, gathering data or announcing an interview opportunity is ok, expecting them to recruit interviewees is not.
3. At the same time, if there are individuals at a site who are very interested in learning more about research and its implementation, seek to find spaces for them to appropriately participate.
4. Finally, part of being collaborative, maybe especially in the technical aspects of research, means communicating your work, including the process of your work as it occurs. As mentioned in the example above, it may be as simple as asking a practitioner on a regular basis—what should I be doing that I haven’t yet thought about?

Collaborations involving the technical aspects of the research can occur in large and small ways. When practitioners and researchers are open to ongoing dialogue about flow and process of data collection, new ways of investigating a problem and deeper levels of understanding about a project may emerge. An ongoing respectful request for collaboration is one of the most

meaningful ways to continue to maintain trust and honor their commitments to the research as well as your own.

Final Thoughts

This piece was difficult to write, because it required a level of vulnerability and self-reflection that can sometimes be risky as a researcher. Researchers in the academy are socialized to be entrepreneurial and focus on making the most strategic of relationships. In that way, developing practitioner-based collaborations and really focusing on their development might mean that one would have to “sacrifice” more traditional accomplishments as a result of engaging in the messy edges of a collaborative project. I will always appreciate my colleagues in research and in practice arenas who are willing to make these choices in hopes of answering the often messy problems present in collaborative action-oriented research.

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COMMON GROUND AND UPWARD BOUND: LESSONS FROM A CROSS-INSTITUTIONAL COLLABORATION

BY EZEKIEL KIMBALL, TYSON ROSE, YEDALIS RUIZ, AND RYAN WELLS

Introduction

Federal TRIO programs provide vitally necessary educational programming designed to increase access and equity for historically underrepresented and underserved populations. By design, they also employ innovative strategies grounded in best practices and rigorous empirical research. However, TRIO programs also pose a paradox: while they present potentially fruitful sites for research, seemingly very little is known about their impact and what is “known” may be confusing or even incorrect (Cahalan & Goodwin, 2014). The framing for the recent joint undertaking between ASHE and the Pell Institute suggests one reason why: collaborations between higher education researchers and TRIO practitioners are relatively infrequent.

In this essay, we highlight two related potential reasons for the infrequency of collaborations in research and practice: 1) the divergent needs and interests of scholars and practitioners; and 2) a difficulty in creating the sort of shared meanings that would allow collaboration to occur. We then describe the development of an ongoing collaboration between personnel in the higher education program and the Upward Bound program at the University of Massachusetts Amherst, highlighting the ongoing conversations and reconceptualizations of research design necessary to make this collaboration work. We describe the collaboration from both perspectives—scholar and practitioner—affording an opportunity to highlight the initial differences in motivation for participation and ultimately the similarities in values for the work.

Problems in Scholarship and Practice

Messages received from professional conferences, literature on best practices, and graduate training exhort those working in higher education to think of themselves as scholar-practitioners (e.g., Bensimon, 2007; Love, 2012; Reason & Kimball, 2012). This knowledge base reminds interested parties that evidence-based decision-making is facilitated by deep engagement with

Abstract

Research findings demonstrate the importance of shared understandings, or “cognitive common ground” in collaborations. Yet, college-going is complex, and potential differences in perspective among scholars, practitioners, and students may easily arise. In this paper, we use insights from practice and relevant research to describe how common ground can be nurtured.

relevant theory and empirical evidence. However, it can also be enhanced through practical wisdom gained over a professional lifetime of experience. Evidence suggests that this sort of deep, reciprocal engagement between scholarship and practice results in improved student experiences; however, an even larger literature base demonstrates how very difficult it is to blend effectively the pressures that motivate scholarship and practice (e.g., Bensimon, 2007; Bloland, Stamatakos, & Rogers, 1994; Kezar, 2000; Love, 2012).

To address this issue, higher education scholars have proposed a number of theory-to-practice models—including guiding concept approaches (e.g. Love, 2012; McEwen, 2003), process models (e.g. Evans, 1987; Stage & Dannels, 2000), and integrative models (e.g. Kimball & Ryder, 2014; Reason & Kimball, 2012;). Much of this literature treats the need for theory-to-practice conversions as a problem confronted by individual practitioners. This framing treats theory-to-practice conversions as an extension of the innate human ability to make meaning of new situations, take action, and learn from the outcomes of one’s actions. Less frequently, theory-to-practice models acknowledge the importance of team-based work, but still make the assumption that the group is comprised of professionals who share similar value commitments and goals for whatever project is being discussed. However, that assumption is naïve and fundamentally problematic on several grounds.

Teams addressing complex problems in higher education of the sorts confronted by TRIO programs are likely to bring together complex coalitions of students, faculty, program staff, administrators, and community members. The role construction of these disparate constituencies differs markedly (Kerr, 1963 / 2001). For example, students likely will be most interested in issues that directly impact them. Faculty members may be most interested in academic matters or could be disengaged from conversations about TRIO programs entirely. Further, while staff likely will look after the quality of the program as a whole, administrators have a broader institutional view that may conflict with the immediate best interests of TRIO programs. Finally, community members may seek to use colleges and universities to pursue broader economic or community engagement opportunities. These different roles produce markedly different views of the organization that, when coupled with a person’s previously held values and prior experiences, means that they may understand the purpose of TRIO programs differently from one another. For example, a belief in the importance of social justice might be shared among TRIO collaborators, but the way that they operationalize these ideas is likely to differ based on differing roles and personal experiences. As a result, intentional conversations are necessary to surface these differences and the assumptions upon which they are based (Bensimon, 2007).

Searching for Cognitive Common Ground

As described above, solving complex problems in higher education requires the integration of multiple perspectives and forms of knowledge. Such undertakings are fundamentally similar to the research process for scholars bridging multiple disciplines—particularly those who engage in the sort of research that focuses on pressing social problems (Moran, 2010). Consequently, in this section, we describe literature related to “grounding”—a theoretical construct developed by cognitive psychologists to describe effective communication strategies. Prior research has employed this approach to study how interdisciplinary collaboration works and to explain radically different productivity levels of research teams (e.g. Bromme, 2000; Repko, 2007).

As described by Clark and Brennan (1991), grounding involves the cultivation of “mutual knowledge, mutual beliefs, and mutual assumptions” (p. 127). That “shared information” then becomes the basis for conceptual common ground. However, as Clark and Brennan (1991) also note, the shared information required for the existence of common ground changes moment-to-moment. Consequently, all communicative exchanges involve ongoing updates to the basis for common ground. The fact that common ground is constantly evolving makes it possible for human beings to communicate effectively across a wide range of differences but also makes it difficult to comprehend when a lack of shared information exists in the moment. Essentially, human beings are neurologically hardwired both to create common ground and to assume its existence (Clark, 1996). However, while grounding has its basis in individual physiological traits and imperatives, it is also a fundamentally social process—the rules to which are learned early in life and reinforced through routine human interactions (Bangerter & Clark, 2003; Clark & Wilkes-Gibbs, 1986; Davies & Katsos, 2010).

Perhaps not surprisingly, the absence of common ground in communication has been associated with a variety of deleterious outcomes. Beers, Boshuizen, Kirschner, and Gijsselaers (2006) describe the inherent problems of bringing together professionals of diverse backgrounds to address problems of practical significance as one of “multiple ignorances” (p. 532). A person’s idiosyncratic and perspectival viewpoint can prevent them from understanding the equally idiosyncratic and perspectival viewpoint of others (Bromme, Rambow, & Nuckles, 2001).

The importance of shared information has led many to adopt one form or another of the “common ground technique,” which in its most essential form is a way of creating and acknowledging jointly-held beliefs (Clark, 1996; Repko, 2007). As made clear above, however, the common ground technique merely formalizes a process in which human beings routinely engage, but which may not be fully completed in the face of complex problems (Beers et al., 2006). The common ground technique simply involves: 1) the structured sharing of information; 2) opportunities for clarification of meaning; 3) the negotiation of joint meaning, and 4) an agreement to revisit mutually-agreed upon common ground on an ongoing basis.

As it applies to collaborations among researchers, program staff, and TRIO participants, literature on grounding helps one to understand better the potential for miscommunication and the need for proactive work to ensure the creation of shared meaning. Key strategies to facilitate this process include: 1) regular, ongoing conversations outside of the context of pressing issues associated with programs or research projects; 2) the mutual development and refinement of shared principles, goals, and strategies for action; 3) a shared willingness to revisit and revise these principles, goals, and strategies whenever the need arises; 4) a tacit assumption that when problems arise they do not stem from malevolent intent but rather from an ignorance of full impact on others (or more likely “multiple ignorances”), and 5) an intentional orientation to these shared principles as new parties are introduced the relationship.

Building a Collaborative Partnership

Our collaboration began in spring 2014. The initial idea for the partnership originated with Zeke and Yedalis while brainstorming possible research sites for an exploratory study on college access. After discussing the need for research that could enhance understanding of how to rectify structural inequities in the college-going experiences of students from underrepresented

communities, they agreed that the most effective research design would involve collaboration with an existing access program that utilized critical praxis to both challenge and help students navigate institutional barriers to college attendance.

Both team members had prior experience doing action research (Stringer, 2007) and were interested in producing scholarship that informed practice (Reason & Kimball, 2012). Having previously worked with Tyson, the University of Massachusetts Amherst's Upward Bound program director, Yedalis suggested that the Upward Bound program could be a good fit. They reached out to Tyson to share initial ideas to develop a collaborative research program that would examine the influence that program administrators, high school students, high school personnel, college tutor mentors, and university administrators all had on the college-going process. Given their action research backgrounds, they also hoped to do this research in a way that directly benefited the program.

While Yedalis and Zeke knew that collaborative research could pose a burden to programs, they were confident that the benefits of their proposed study would far outweigh the negative consequences. At the outset, however, Tyson had no way of knowing any of this information. In retrospect, it is perhaps unsurprising that early conversations proceeded in fits and starts as all involved began to define the scope of the project and to implicitly (but not yet explicitly) take part in mutual development and refinement of shared principles, goals, and strategies for action. As has been noted elsewhere (Clark, 2008), many community-based organizations and programs get fatigued by academic inquiries and research that do not lead to an actual benefit for the community being served. At these early meetings, Tyson expressed a desire to protect the best interests of the student program participants and also questioned the potential benefits for the Upward Bound program. Importantly, he also asked for time to consider how this potential partnership could best include the program's needs before allowing access to the program and to be involved in defining the scope of the proposed research.

Working with Tyson, Yedalis and Zeke prepared a series of project summaries that described study goals, theoretical frameworks, and research designs. These documents helped to refine the study's overall purpose and research questions, and even more importantly, the process of drafting them resulted in a collaborative working relationship and shared understanding of the research project. After several weeks, Tyson, Yedalis, and Zeke all agreed to a draft project summary. Once this draft summary was complete, Yedalis and Zeke attended an Upward Bound program meeting where they met the rest of the full-time staff members. Just as the introduction of Tyson's thinking on the project reshaped it in important ways, the conversation with the program staff did as well. This meeting led to ongoing conversations about program well-being, how researchers would impact interactions with students, and whether this work would be helpful with evaluation activities. It also resulted in a number of modifications to the project summary and a collaborative working relationship with the members of Upward Bound program's staff that meant that they were comfortable providing ongoing feedback about the research project and its impact on program operations.

Ultimately, the process from idea-to-agreement took almost a full semester, but it resulted in a study design that produced higher quality findings that were grounded in the real experiences of program staff and participants. The ongoing collaboration and development of shared meaning-making proved a critical component of its success. Through the process, it became clear that the

project's common ground would be a shared focus on the students and their success. It also became clear that those approaching this commitment from both a research and a practice perspective were all interested in better understanding the mechanisms by which participants in the access program form college-going aspirations.

By design, the project aimed at generating actionable findings that could inform policy, budgetary, and programmatic decisions. A secondary aim was to gain knowledge about the way that students form, reshape, and nurture a college-going identity in relation to structural obstacles and personal experiences. Additionally, the program leaders identified a need for investigating key components associated with student participation in the access program specifically related to student participant satisfaction and elements of social support. The project approach included multiple methods for investigating these key components including interviews, focus groups, observations of program activities and document analysis.

The communication established in the initial stages of the project continued as the research began in earnest, and was instrumental in the success of this work. Yedalis and another graduate student researcher regularly attended Upward Bound program meetings and spent a great deal of time as observers at the program site. When the research team was on site at the access program, in addition to the interviewing or field observations, they would join in program activities and operations as needed, which made them useful to the program staff in multiple ways. This work helped them not just to develop better rapport with the Upward Bound program staff but also a better understanding of the Upward Bound program—and how it differed from others around the country.

By working closely in an integrated fashion with the program, it became clear what additional resources would be useful to the program and offered an opportunity for developing access to other community networks and services. For example, the students in the program identified an interest in interning in the field of public health directly connected to food access and healthy behaviors. As a result, Yedalis was able to make a connection to a community health center with which she had a long-standing professional connection and knowledge of their regular work with community partners. The health center and the Upward Bound program met to explore future health programming collaboration, including possible opportunities for student internship programs. Although the health center and the high school where the Upward Bound program is based are within walking distance of each other, it was through this collaborative research project that they became aware of common ground in their respective programming and goals. This example demonstrates the opportunities for developing new members within a collaborative project and identifying additional resources and opportunities for meeting research and programmatic aims when all involved have an “intentional orientation” to the shared principles of common ground discussed above.

Addressing Concerns Regarding Impact on Practice

Throughout this collaboration, those involved returned frequently to the idea that community-based action research should be more focused on the community served than on the research results. The idea served as the common ground that held our collaboration together (Bromme, 2000). As a result of this shared understanding, people with disparate motivations and interests could work together on a research process that resulted in outcomes meaningful to all involved.

This collaboration is consistent with Wenger's (1998) community of practice, which is a collection of individuals and groups sharing a common purpose and learning together in the service of that purpose. Participants in a community of practice share their knowledge, experiences, and resources to achieve meaningful goals.

In our collaboration, common ground occurred more easily due to the prior backgrounds and experiences of the personnel involved. As Clark and Brennan have noted (1991), common ground has to be built from shared systems of meaning. Both Yedalis and Zeke identify as scholar-practitioners rather than researchers and value community-based work. When the Upward Bound staff sought definition and redefinition of the work Yedalis and Zeke proposed to do, they saw it as an opportunity to revisit and revise the principles, goals, and strategies the partnership was based upon rather than an imposition. Doing so is consistent with Bensimon's (2007) admonition that examining the implicit theories utilized to structure practice is critical to cultivating student success outcomes. Further, Yedalis' extensive professional experience working in community-based education, and her personal experiences as a bilingual/bicultural first-generation student participating in programs such as this one made her uniquely well-suited to engage in this sort of research. Therefore, her ability to meet and join the access program staff in a conversation about a potential collaboration included elements of membership that helped to bridge the research and programmatic aims.

However, even given the researchers' backgrounds and commitments, the collaboration would not have been possible without the ongoing commitment, expertise, and willingness to find common ground of the Upward Bound program staff. As with many grounding processes, this commitment took considerable time (Bromme et al., 2001). Here again, the prior experiences of the personnel involved proved helpful. Tyson readily identifies as a scholar-practitioner and is a graduate of an academic program closely related to the one that serves as Yedalis and Zeke's academic home. Further, he is thoughtful and intentional in his approach to programming: virtually all of the work that he does is informed by critical and social justice perspectives. These commitments were infused into the programmatic and staffing decisions. Consequently, while deeply committed to the best interests of the program, Tyson and the Upward Bound staff were already positively predisposed to a project of this sort—provided it could be framed in the right way. Perhaps more importantly, they had the “intentional orientation” needed to engage with the process, and with others with different roles, experiences, values, and assumptions about the work. This observation is consistent with literature that suggests that the creation of common ground is a complex, negotiated process (Beers et al., 2006). Both the research team and the Upward Bound program staff members also worked to make students active participants in the research by sharing with them the purpose of the work and allowing them to help shape research in important ways. For example, student participants first suggested the importance of fear as a motivation for both college-going and dropping out. They also helped to shape the research methods on this theme in important ways—for example, providing suggestions for new research topics and letting researchers know when they felt they had something to contribute via an interview.

Importantly, Tyson and Yedalis' prior working relationship effectively established a baseline level of trust and provided an opening for conversation. This statement is consistent with literature on common ground that describes it as a dialogic process (Bangerter, & Clark, 2003). This conversation proved to be critical in addressing Tyson's well-founded skepticism. The

Upward Bound program staff members had built a program infused with a commitment to social justice—committed to recognizing and working to address the effects structural racism, poverty, and other forms of oppression have on the daily life of program participants. Consequently, the Upward Bound program staff members are very intentional in looking at practices, collaborations, relationships and processes that stem from and embody shared philosophical and ideological beliefs. As noted above, prior literature has shown that structured thinking about program purposes and design produces positive outcomes (Reason & Kimball, 2012). Before approving Yedalis and Zeke’s proposed research, Tyson and the program staff needed to develop a deeper understanding of the perspectives of the research team. This process helped to address concerns regarding the program staff’s fear that the research team would not value the expertise of the practitioners or program participants, the prospect that research would only serve the academic designs of the researchers, and the perception that the research process would be intrusive. In so doing, concerns that academic research might not prove useful were overcome (Kezar, 2000; Love, 2012). These concerns are quite real for TRIO programs—given a paucity of available empirical information.

Ultimately, Tyson and the Upward Bound program staff grew comfortable with the researchers and the design that they proposed through sustained dialogue. However, that comfort alone would not have been sufficient motivation for them to allow the researchers access. The program staff members were also concerned about potential adverse impact on student participants. These concerns stem from the recognition that many researchers may not possess necessary cultural competencies to work with students from marginalized communities (see Bensimon, 2007). To address this concern, the design proposed by the researchers needed to address pressing issues of program concern while also taking into account the knowledge, experiences, and backgrounds of program participants. Based on a design that did so, the program staff gained access to information and research capacity to which they would not have otherwise had access.

For under-resourced TRIO programs, these sorts of collaborations can be particularly fruitful. In this case, the program has been able to investigate the experiential and anecdotal knowledge of practitioners and provide evidence that is necessary to implement programmatic interventions and positively impact student outcomes. The research also offered the opportunity to delve deeper into and understand the student experience without expending valuable internal resources. Additionally, the research has offered the program the critical inquiry and feedback opportunities. What emerged through the intentional process of developing, deepening and maintaining common ground was a research collaboration that represented the rigor and mindfulness necessary to recognize and attend to the concerns held by the program staff while also meeting researcher needs. It created the opportunity whereby the researchers and the program gained valuable insight and knowledge that will impact the program across multiple levels of the organization. Ultimately, what was created was an environment where the reciprocal goals of research and practice could be realized.

Conclusion

Reciprocal engagement between scholarship and practice offers opportunities to share scarce resources and vital insights. However, to successfully collaborate with people who have radically different role constructions—scholars, practitioners, students and community

members— requires intentional relationship building in order to establish lasting partnerships. First, the divergent assumptions, values, and priorities of those involved must be acknowledged and respected. Second, common ground in purpose must be established, explicitly explored, and systematically revisited. Third, a shared group identity that is simultaneously enduring in its general purpose and flexible in its members must be created based on mutual trust. Finally, the collaboration must foreground actual impact—what works and what does not. None of this work is easy, but it is possible.

The collaborative project that we described in this essay achieved common ground, which has helped it to continue despite conflicting demands and priorities. Working to establish a community of practice engaged in a single community-based research project has yielded broader dividends. Through ongoing discussions regarding resources and common purpose, the original goals of the conversation have shifted to the potential for larger impact. As a result, a subsequent collaborative was developed through this process—the Access Pathways Project (APP), a collaboration between the Upward Bound program and key departments within the university that are committed to higher education access among underserved populations. It also provided an opportunity to bring in other researchers—Ryan Wells among them—as we sought to understand student success not just in accessing higher education institutions but in flourishing within them once enrolled. This project illustrates an example of the process of developing a collaborative partnership and describes the key factors to establishing a mutually beneficial, trusted and sustainable partnership between researchers, practitioners, and community.

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RESEARCHER AND PRACTITIONER COLLABORATION TO ADVANCE INQUIRY AND ITS USAGE

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Abstract

This essay explores the relationship between researchers and staff of college access and success programs. Although collaborations between the two are at times challenging, the outcomes are significant for all. The essay goes on to show a case study example from the West Virginia GEAR UP, and concludes with a list of recommendations.

Introduction

Researchers and evaluators of college access and success programs come to their work armed with knowledge of both research methodologies and the field gained from their education, experience, and immersion in literature and research. As they begin framing a study, gathering background information, and planning data collection, however, researchers are faced with an aspect of their work for which schooling and research literature provide little guidance—working with program staff. Researchers are dependent on and must work with practitioners of college access and success programs to gain crucial information ranging from contextual information to student participation and outcome data. This essay argues for a collaborative approach to conducting research on these programs both for the values collaboration embodies and the benefits it offers. While it may be more applicable to qualitative inquiry and program evaluation, these are solid precepts for quantitative inquiry as well. We explore why relationships between researchers and staff of college access and success programs can be difficult but argue that the benefits for all are significant. We follow with a brief case study of the West Virginia GEAR UP program evaluation and conclude with

recommendations to be applied to research more broadly.

Challenges to Collaboration

Educational researchers, practitioners, and other stakeholders are invested in understanding what works in college access and success programs. So why is the relationship fraught with challenges? While their area of work is similar, the choices made in how to engage in that work are different. Choosing to be a researcher versus a practitioner belies different orientations and even different values that can lead to differences of opinion and priorities. Both groups possess knowledge and experience about these programs from their education and work. This deep knowledge can work to prevent one from seeing the different knowledge and perspectives of the other and how the two might be complementary. Research ethics themselves may deter researchers from developing relationships with program stakeholders and staff. Researchers may fear for real or perceived lack of objectivity due to relationships with the people implementing

the program of study. Another substantial challenge to building relationships between researchers and practitioners is simply time. Jointly framing inquiry, understanding perspectives, and collaborating take a significant amount of effort and time that must be prioritized in order to be coordinated and carried out. From the perspective of the practitioner, being an active participant in the research process can be seen as time taken away from actually implementing the program.

Perhaps the biggest obstacle in fostering relationships and collaboration between researchers and college access and success program staff is the development of trust. Practitioners may be skeptical that research can adequately capture the program's complexity and the constraints and context that frame its outcomes. Practitioners have responsibility for program success and have loyalty to its stakeholders, employees, and participants. This can foster very real fears about the uses of research and how it will make the program look, especially to funders. Unfortunately, such fears could lead to curtailed participation and candor. Researchers then may fear they are not getting complete and unbiased information.

Consequences

When mistrust prevents good relationships, research or evaluation is something done to rather than with the program, resulting in less than full cooperation and incomplete information and data provision. This threatens the validity of the research and limits the likelihood of appropriate conclusions and recommendations. A poor relationship and a sense among practitioners that they have been the subject of assessment as opposed to participants in a learning process decrease the chances of recommendations actually being implemented.

On the other hand, a good relationship and collaboration lead to better research design, more complete information and data, and therefore higher quality research. Ownership of and participation in research processes by practitioners increases the acceptance of findings and conclusions and the application of recommendations (Patton, 1997). A unified front between researchers and practitioners about recommendations can also enhance the response from decision makers, funders, and policymakers. On a more philosophical level, working collaboratively shares power and responsibility for research design and decisions between researchers and program practitioners (Patton, 2002). This puts into practice the sense of equity that drives educational access and success researchers and practitioners in the first place. More globally, it holds in balance professional principles of competent and systematic inquiry with respect for people both immediately and indirectly affected by the process and outcomes of research (American Evaluation Association, 2004).

While we might philosophically agree that collaborative research and evaluation are good and have clear benefits, actual implementation requires planning, communication, flexibility, and responsiveness to feedback. Following is a case study of how the staff and evaluators of a college access program collaborated to improve both the evaluation and the program itself.

Case Study

Background of West Virginia GEAR UP. In July 2008, the West Virginia Higher Education Policy Commission (WV HEPC) was awarded a U.S. Department of Education GEAR UP grant

totaling nearly \$18 million. GEAR UP (Gaining Early Awareness and Readiness for Undergraduate Programs) aims to help more students prepare to be successful in some form of education and training beyond high school.

The 2008-14 WV GEAR UP grant was comprised of two structural components: (1) annual early academic interventions for a cohort of 7th grade students who would graduate high school in 2014 (called the 2014 Cohort) and (2) a priority student approach focusing on just-in-time outreach interventions for 11th and 12th grade students in need (called the Priority Group). Over the six-year period, more than 13,000 unduplicated students received services in a total of 48 public schools. College access services included, among other interventions, tutoring, mentoring, college and job site visits, financial aid advising, and summer residential academies. Parents and family members participated in college and career planning, including FAFSA completion workshops. Educators in GEAR UP schools participated in meaningful professional development aimed at helping them prepare students to aspire for and be academically prepared for postsecondary education.

Proposed WV GEAR UP Evaluation. Like many college access and success programs, the WV GEAR UP project included broad goals to ground its program evaluation. Specifically, WV GEAR UP sought to significantly increase (1) the academic performance and rigorous preparation of 2014 Cohort students for participation in postsecondary education; (2) the number of high-poverty, at-risk students prepared to enter and succeed in postsecondary education; (3) the rate of high school graduation and participation of 2014 Cohort students in postsecondary education; and (4) 2014 Cohort students' and families' knowledge of postsecondary educational institutions, admissions requirements, and financial aid. WV GEAR UP also had a fifth goal that aimed to ensure effective, efficient, and appropriate use of resources through intentional collaboration with identified partners committed to GEAR UP goals.

To determine the extent to which the program achieved its five broad goals, the evaluation plan included in WV GEAR UP's grant proposal transcended a design aimed simply at answering questions required by the Federal Annual Performance Report (APR) due each April (e.g., number of student and parents served, perceptions of college affordability). WV GEAR UP proposed a rigorous evaluation that was grounded in research questions framed to address both project implementation (the quality and quantity of project activities and interventions) and impact (the degree to which project objectives and goals were achieved). According to preliminary plans, implementation findings were intended to allow project managers to make formative decisions about activities and interventions on a day-to-day basis to provide the greatest benefit to stakeholders. However, the ultimate evaluation plan was designed to look across project implementation and outcomes to make summative statements about the project as a whole.

Early Challenges: Building a Trusting Relationship. WV GEAR UP selected an external evaluator through a Request for Proposals process based on the evaluation company's model to evaluate the impact of the program through effective data collection, creation of a web-based data warehouse for all data sources, and reporting of program implementation and outcomes data beyond APR requirements.

Developing a trusting relationship between WV GEAR UP practitioners and the selected external evaluators was a challenge at first. This was partially because the program was well underway by the time the evaluator was awarded a contract (January 2009). The program had begun in July 2008, giving program staff and local stakeholders several months to prepare for implementation before the evaluator was brought on board.

At the outset of any project, much coordination and planning are required to establish expectations and timelines to which all parties agree. In the case of the WV GEAR UP project, program staff had to undergo the process twice—once following the grant award and again after the selection of the evaluator. Although the repeated process required time and effort for planning and coordination at two different points in time, this coordination was important to the integration of the parallel activities of the grant and its evaluation. The proposed evaluation plan included a variety of methods and strategies for collecting and analyzing data. Following award of the contract, the nature and scope of the data to be collected had to be finalized, data collection tools had to be designed, and strategies and protocols for collecting the information had to be established.

Although WV GEAR UP staff at the state level understood and appreciated the need for comprehensive data collection, site coordinators (local liaisons responsible for planning and implementing services) did not have the same understanding of the need or appreciation for the possibilities the information might afford them. Site coordinators also did not understand why survey response rates were set so high (80% for students and 50% for parents). Repeated, consistent explanation of the importance and need for the information helped site coordinators become active participants in data collection, particularly for surveys; however, some continued to perceive the magnitude of data collection to be a burden.

Through their efforts, WV GEAR UP staff learned that reaching down from the higher education sphere into the K-12 sphere to provide and evaluate college access programs is not a successful model. The approach must be collaborative and inclusive, valuing the perspectives, experiences, and expertise of stakeholders at both levels. If all parties feel they are valuable to the effort, they will be more likely to value and utilize the available data to make decisions and scale best practices.

Cultivating a Strong Relationship. Because there were minor bumps in the road at the outset of the WV GEAR UP evaluation—as in most studies of a similar scope and complexity—WV GEAR UP staff and the external evaluation team worked intentionally to develop a relationship that was mutually agreeable and capable of producing high-quality, useful information. Ultimately, the shared goal of implementing a strong research design and developing valid and usable knowledge about the program’s implementation and outcomes united program staff and evaluators in a common effort. The evaluator’s general philosophy of collaborative, utilization-focused, and pragmatic (Patton, 1997, 2002) evaluation practice likely gave the team a greater propensity toward cooperation with program staff than researchers who subscribe to other philosophies. The philosophical outlook alone, however, did not result in a strong relationship or a high-quality evaluation. Both the program and evaluation teams took explicit action to build, refine, and reinforce the partnership.

Communicating Regularly. An important and fruitful strategy for building understanding and trust between WV GEAR UP staff and evaluators was regular interaction through in-person meetings and other forms of communication. Evaluators often met with the WV GEAR UP Advisory Board to discuss evaluation progress and findings. They also attended monthly site coordinator meetings to provide information or materials, collect data, and answer questions. In addition to formal interactions, WV GEAR UP staff and evaluators interacted regularly through in-person office visits (both scheduled and impromptu), telephone calls, emails, and text messages. The frequent communication helped ensure the evaluation team had a comprehensive understanding of program administration, operations, and priorities at all levels of operation. Likewise, program staff developed an extensive understanding of evaluation processes, requirements, and constraints. Maintaining regular communication promoted responsiveness to emerging needs (e.g., programmatic or evaluative adjustments, data requests from policy makers). Further, the varied communication methods allowed both partners to see and hear the knowledge and passion each brought to the partnership.

Over time, the interactions between WV GEAR UP staff and evaluators helped members of each team get to know each other personally. These personal relationships further enhanced the sense of trust and respect. Some researchers and evaluators may be hesitant to develop personal relationships with program stakeholders due to a fear of compromising their objectivity. However, in the case of the WV GEAR UP project, the development of personal relationships across teams was in keeping with traditional Appalachian cultural values (e.g., hospitality, personalism; see Jones & Brunner, 1994) and promoted mutual trust and appreciation for the knowledge and perspectives of each team. Neither team perceived that research objectivity was compromised through positive personal relationships. The fact that the Year 6 WV GEAR UP evaluation report won the 2015 AERA Division H Outstanding Publications Competition in the Program Evaluation category further suggests that the quality of the research was not detrimentally affected.

Maintaining Flexibility. Although an evaluation plan and other documented agreements (e.g., contract, scope of work) formed the basis for the formal relationship, the evaluation team and WV GEAR UP staff acknowledged from the outset the possibility that changing circumstances may necessitate flexibility in preliminary plans and agreements. For program staff, such flexibility manifested itself in various ways: revisions to requirements of local sites' annual work plans, changes in emphasis from year to year, addition of programmatic opportunities, and so on. Programmatic flexibility was both a necessary response to changes in federal requirements and a determined response to emerging needs and evidence of program effectiveness. One may expect that program staff will adapt or refine implementation strategies throughout the life of a program in order to achieve goals. However, evaluators had to remain mindful that programmatic changes may demand corollary adjustments to evaluation plans. Again, the shared goal of building knowledge about the program as implemented—complete with formative modifications—ensured that evaluators and WV GEAR UP staff collaborated to make adjustments when needed and appropriate.

Flexibility in the evaluation was not merely a response to programmatic changes. It was also needed in revising the scope of work and data collection to meet WV GEAR UP's needs. The integrity of the underlying research design was never compromised or altered; the quasi-experimental design was carried out largely as initially envisioned. However, the scope of the

data collected transformed over time in response to the needs of the program. Content and format (paper versus online) of student, parent, and school personnel surveys was revised carefully over time to ensure that the instruments efficiently captured all information vital to both the evaluation and to program staff's evolving needs. Items in survey instruments were routinely reviewed collaboratively; unnecessary items were deleted, and response options were revised as needed. Additionally, new survey or interview items or sections were added to ensure that data were available for areas of critical importance to WV GEAR UP staff. In Year 3 (2010-2011), the annual student and parent surveys were revised to include items assessing familiarity with and utilization of the College Foundation of West Virginia (CFWV) web-based planning and information portal. Although not designed specifically for the WV GEAR UP program, the portal did provide information and services relevant to GEAR UP goals, and WV GEAR UP staff promoted its use as part of the program. Program staff needed information about students' and parents' knowledge and use of the portal to design further awareness campaigns and training efforts. Therefore, evaluators included relevant survey items to provide additional value in the evaluation with minimal additional cost.

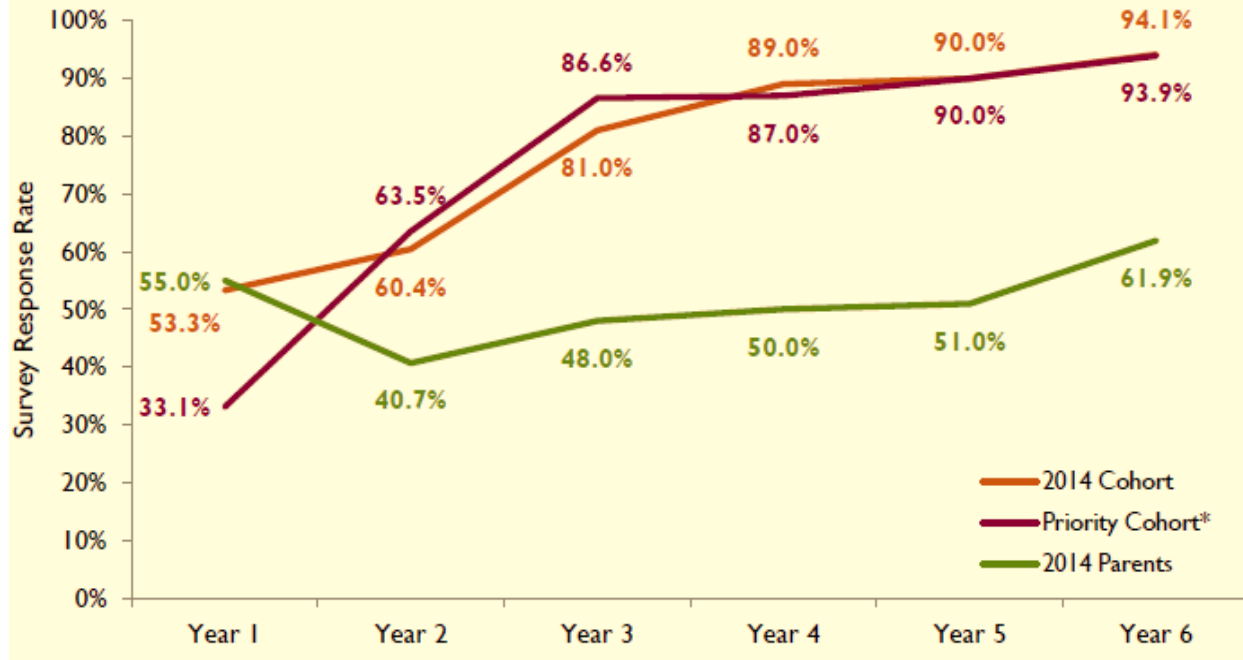
Changes to the scope of evaluation reporting were also negotiated in Year 1. As initially designed, the evaluation team was to provide quarterly summaries of evaluation activities and progress, along with key findings and policy implications. Comprehensive reports of findings and recommendations were to be delivered in Years 3 and 6. During the first year, however, the Chancellor of the WV HEPC expressed a desire for more regular formal reporting of comprehensive findings. As a result, evaluators restructured the scope of the reporting plan to include quarterly progress summaries three times a year, annual reports of formative findings, and a final summative report at the conclusion of Year 6. In revising the project's reporting requirements, the evaluation team and program staff worked to ensure that changes in the time and cost burden was still within the scope of the original contract and budget. All of these instances of changes to program and evaluation activities required and exemplified close collaboration between staff and evaluators that resulted in taking advantage of rising opportunities and meeting stakeholder needs.

Sharing Responsibilities. One of the most powerful examples of the benefits of collaboration between program staff and evaluators involves the administration of annual student and parent surveys. Each year, participating students and parents completed surveys about their knowledge, perceptions, attitudes, and experiences related to WV GEAR UP and students' postsecondary options. Every other year, students and parents in a comparison group also completed surveys. Over six years of the project, 18,135 student surveys and 10,303 parent surveys were collected.

The surveys provided valuable information for the evaluation; they were also a required component of the federal program. Federal requirements mandated an 80% response rate for student surveys and a 50% response rate for parent surveys. Although response rates of that magnitude are not entirely unattainable, they are incredibly difficult to achieve. Evaluators would not have been able to gain the cooperation of several thousand parents and students each year without significant assistance from GEAR UP site coordinators. WV GEAR UP staff and evaluators worked together to coordinate local survey administration through the site coordinators who distributed and collected parental consent forms and surveys.

Strategies for the consent process and survey administration changed over time both to ease the burden on site coordinators and to improve response rates. After the first year, WV GEAR UP staff and evaluators collaborated to develop a durable consent form for participants that covered all data needs and the entire anticipated time-frame of the research—a shift from the preliminary strategy of requiring a new opt-in consent form annually. As it became clear that reliance on paper-based surveys might pose a barrier in achieving required response rates (and posed a substantial burden on site coordinators), the evaluation began to incorporate online surveys. Different web-based survey strategies were tried (with paper surveys available as needed), and by Year 4, the program met or exceeded response rate requirements (see the figure below). Moving to an online survey format both improved response rates and facilitated easier to implement processes for site coordinators. These solutions met the needs of both program staff and evaluators.

Figure 1: WV GEAR UP student and parent survey response rates increased over time as a result of improved administration practices developed collaboratively by evaluators and program staff.



Beginning in Year 3, the evaluation team provided ongoing updates about survey response rates, and in Years 4 through 6, evaluators provided site coordinators with real-time survey completion updates through an integrated survey tool and participant management system. Providing timely information about response rates helped site coordinators develop targeted lists of non-responders for follow up. Response rates steadily improved over time—and exceeded minimum requirements—as WV GEAR UP staff and evaluators adjusted survey administration strategies.

Triangulating Results and Interpretations. As part of reporting processes, evaluators routinely shared preliminary drafts of all reports with program staff for review. Reviews

conducted by WV GEAR UP staff primarily served as validation checks for reported data and the evaluation team's interpretations of findings. Asking program staff to review the interpretation of findings and proposed recommendations was an important strategy for evaluators to ensure they properly understood the program's context. Some researchers may be hesitant to invite program staff to be part of the reporting process; they may have justifiable concerns about the possibility of clients asking them to modify or exclude findings. Building a strong foundation of trust, understanding, and respect, however, can work to prevent such actions. WV GEAR UP staff never asked evaluation staff to change or exclude findings. Program staff only reviewed findings to ensure their accuracy and completeness and to provide additional insight or information to assist evaluators in drawing comprehensive and contextually meaningful conclusions and recommendations. The strategy, built on trust, ensured that all appropriate perspectives were taken into account. This opportunity to provide feedback on early reports also fostered program staff trust in the evaluation as well as a sense of ownership that fed future collaboration.

Utilization of Findings. Evaluators' trust in program staff typically increases when staff make use of evaluation findings. Professional evaluators design evaluation studies to be useful and used by stakeholders. In fact, the program evaluation standards specifically address the utility of an evaluation for intended users (Yarbrough, Schulha, Hopson, & Caruthers, 2011). When stakeholders do not use findings of evaluation studies in meaningful ways, evaluators may become frustrated and skeptical about stakeholders' motives. Throughout the WV GEAR UP evaluation, however, program staff regularly reviewed and used evaluation findings to guide and inform decision-making. At the state level, findings were used to revise annual work plans, which were included in annual sub-grant agreements and site coordinator contracts. At the site level, friendly competition for results led to incorporation of findings. For instance, at the close of Year 3, when results showed that for a third year, only 17% of students or fewer could correctly identify the cost of one year of tuition at a four-year public college or university in West Virginia, WV GEAR UP staff designed and implemented specific interventions to improve understanding of tuition costs. By the end of Year 4, approximately 34% of students and 30% of parents correctly identified the cost of one year of tuition at an in-state college. By the end of their senior year in high school, students in the 2014 Cohort were three times more likely than their non-GEAR UP peers to accurately estimate the cost of tuition.

The evaluation team also used feedback to adjust not just tools and processes but also how they interacted with program staff. For instance, in an ill-fated attempt to bring both clarity and levity to a description of survey administration procedures, evaluation team members devised and presented a skit to demonstrate the process. Rather than finding the skit light-hearted and helpful, however, site coordinators found it condescending and unnecessary. Their comments on the evaluation form WV GEAR UP staff administered following the event clearly voiced their displeasure. Evaluation staff took this feedback into consideration when deciding how to improve interactions with site coordinators. At the next site coordinator meeting, evaluators specifically referenced the offensive skit (and site coordinators' poor opinion of it) in a good-humored way and promised not to offer any more theatrical performances. Evaluators' willingness to accept and use that feedback improved the relationship between the evaluation team and site coordinators, which became very positive over time.

Within the partnership, utilization of data and findings was only possible because both partners were open to critiques and suggestions. That openness was enabled and enhanced by the trusting relationship the partnership built throughout the life of the WV GEAR UP grant.

Recommendations and Conclusion

The fruitful relationship between WV GEAR UP staff and external evaluators was developed through intentional acts by both groups. What follows is a list of recommendations based on their experience.

1. Include program staff in the development and/or finalization of research or evaluation plans.
2. Evaluation/research staff and program staff should communicate regularly in varied formats to foster the relationship and so that each is abreast of the other's progress and needs.
3. Develop from the onset and maintain an openness to flexibility. Both program and evaluation/research needs require it.
4. Share responsibilities for data collection and its improvement. Data collection that is less burdensome and more efficient is respectful of everyone's time and increases the likelihood of comprehensive collection.
5. Utilize formative findings. Both evaluators and program staff can improve their work and the relationship by doing so.

The WV GEAR UP program and its evaluation are an example of how intentional collaboration can result in deeper trust between parties and a more productive evaluation relationship. The collaboration resulted in a high-quality evaluation that met federal requirements, responded to changing needs on both sides, and ultimately provided information that improved the program. To learn more about WV GEAR UP and its evaluation and research efforts, visit www.wvgearup.org

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DESIGNING PROGRAM OUTCOMES WITH AN EYE TOWARDS PROGRAM IMPROVEMENT

BY CHRISTOPHER M. MULLIN

Years of research have identified particular issues that grant programs are ideally designed to address. Grant programs are structured to offer practitioners the opportunity to make meaningful improvements for participants within a particular and often unique context of implementation, and funders – be they governments or donors – can target funds to particular populations or purposes to meet their objectives in a way that general appropriations or unrestricted grant funds do not. Yet, there exists an inherent tension in what would otherwise be considered an ideal combination of mutual interests. In particular, I speak of the desire by practitioners to make improvements in program delivery and outcomes and the desire of funders to achieve often very specific outcomes.

How then do we structure programs to acknowledge both program improvement and excellence? The purpose of this essay is to suggest a process to address this paradox. This is accomplished by first reviewing key components of a purposefully structured plan focused on success which includes identifying what is to be measured, requiring projected outcomes, comparing actual and projected data to inform program impact and explaining what the data mean.

Structured for Success

Like a building, a program cannot be sound unless it has a strong foundation. Characteristics of a strong foundation include a series of articulate statements that define the scope of the work, expected deliverables and parameters delineating allowable activities. As it relates to federally funded programs in particular, these characteristics are well espoused.

A request for proposals (RFP) that includes these foundational elements allows for applicants to focus squarely on the activities and related expenses that will be employed to meet the grant objectives. Furthermore, a strong RFP allows for the development of a monitoring and accountability system during the proposal phase to guide the creation of proposed activities and align all activities across the various phases of the grant program to ensure fidelity in implementation.

Abstract

This essay focuses on the way programs should be structured in order to address both program improvement and excellence. It closes with a discussion about two supporting factors critical to the success of the process: leadership and management.

Figure 1: Aligning Outcomes Throughout the Grant Process						
Outcomes	RFP	Proposal	Annual Report #1	Annual Report #2	Final Report	
Outcome #1	✓	✓	✓	✓	✓	
Outcome #2	✓	✓	✓	✓	✓	
Outcome #3	✓	✓	✓	✓	✓	
Outcome #4	✓	✓	✓	✓	✓	
Outcome #5	✓	✓	✓	✓	✓	

NOTE: The above graph illustrates the alignment of outcomes across the primary documents associated with a grant program: the request for proposals, the proposal, and the (usually) annual and final reports.

Experienced grants writers and practitioners recognize that the aligned outcomes that run throughout the grant process – from the RFP to project completion – are just one aspect of a successful application. The substantive part of any proposal and resulting reports include the activities undertaken by the proposed program to achieve the outcomes. Should a proposal be funded, successful implementation is the result of implementing the plan as proposed, continually monitoring its outcomes, and learning throughout implementation.

In this section, I discuss a linear progression from grant development – building the foundation – through project completion with a direct focus on the use of data to ensure that the program focuses not only on the outcomes desired but the continual improvement practitioners seek. I begin with a process to identify what is to be measured and how it is measured, then continue to articulate the need for projections to remain focused, and close with how comparing data supports improvement efforts.

Part 1: Identify What is to be Measured

The development of outcomes measures is a process that starts with identifying goals, continues to the creation of outcomes that reflect the goals, which informs the creation of metrics to quantify the outcomes and hinges on meaningful indicators of performance. In 2015, the Post Collegiate Outcomes Initiative¹ published a number of papers related to the post-college

¹ The American Association of Community Colleges (AACC), in partnership with the Association of Public and Land-grant Universities (APLU) and the American Association of State Colleges and Universities (AASCU) have

outcomes of students. Among them was a paper examining the dimensions to consider when creating measures in which the terms outcomes, metrics and indicators were defined as the following:

- Outcomes: the results of a higher education experience that are evaluated or measured
- Metrics: the standards of measurement of a system of parameters used to evaluate outcomes, and
- Indicators: statistics that provide a context or benchmark for metric results (American Association of Community Colleges [AACCC], American Association of State Colleges and Universities [AASCU], and the Association of Public and Land Grant Universities [APLU], 2015, p.2)

This essay builds upon this important work by extending the conversation around metrics to include both outcome and process metrics as well as re-envisioning how we think about indicators. This discussion is supplemented by a modified version of a table presented by the Initiative, shown here as Figure 2.

collectively developed a strategic framework to guide discussion and the creation of measurement tools for reporting student outcomes after college. Funded by the Bill & Melinda Gates Foundation, the project partners assembled subject-matter experts and institutional leaders to create a framework and application tools that will enable colleges and universities, policymakers, and the public to better understand and talk about post collegiate outcomes in areas such as economic well-being, ongoing personal development, and social and civic engagement. The development of the framework and the accompanying tools are an important first step toward the creation of common metrics and indicators for use by institutions to report a more comprehensive set of post collegiate outcomes. For more information see <http://www.aacc.nche.edu/AboutCC/Trends/pco/Pages/default.aspx>

Figure 2: Outcomes, Metrics, Process Metrics and Indicators

Outcome	Outcome Metrics	Process Metrics	Indicators
Program Completion Rates	<ul style="list-style-type: none"> Participants completing the program as a percent of all participants starting the program. Participants completing the program as a percent of participants in the program one month after starting. 	<ul style="list-style-type: none"> Participants completing core activities. Attendance rates of program participants. Percent of participants completing $\frac{1}{4}$, $\frac{1}{2}$ and $\frac{3}{4}$ of the total program activities. 	Weekly attendance rates
Employment Rates	<ul style="list-style-type: none"> Employment in the fourth fiscal quarter after completing the program. Position change (promotion) for program participants who were working at time of program enrollment. 	<ul style="list-style-type: none"> Hours of on-the-job training/internship/externship per participant. Acquisition of industry certification during program participation. 	Weekly rates of work completion

Outcomes. Outcomes are those results of an experience that are to be measured. Often, these outcomes are constructs, or concepts, that allow for laypersons to be engaged in the project without being over-prescriptive so as to squander creativity and alienate the support of laypersons or experts. Figure 2 presents two fairly common outcomes of interest: completion rates and employment rates. Practitioners with experience in the field fully understand that there are a number of ways to measure these outcomes, each accompanied by caveats and concerns. However, this cannot serve as a barrier to embracing the idea. What must occur to support meaningful grant implementation is the acceptance of a metric or series of metrics related to the outcome.

Outcomes Metrics. Measurement of those actions that can be observed may be constructed in a way that results in some metrics, be they the counts of actions (number of participants) or rates (number of participants reaching a defined threshold such as completion). Outcome metrics are directly related to the outcome and are typically “high-level” metrics that speak to the group in

aggregate. Figure 2 presents an example, where outcome metrics for the Program Completion Rates outcome are calculated as the number of participants completing the program as a percent of all program participants starting the program.

Setting an outcome in the planning phase can be worrisome, but it is critical to a strong proposal, plan and program. All too often there is the desire to refrain from clearly articulating expected outcomes for fear of not meeting them. I would suggest that thoughtfully prepared outcomes remove that fear as 100% perfection is an aspiration and not a reality. That being said, there is a way to provide expected outcomes while also acknowledging potential differences.

For example, if a program participant begins a program but leaves shortly after the program begins, it may be hard to say that the program itself was at fault. In this case it may be that a grant program may choose to only include the participants who were still participating one month after starting; in practice this is called behaviorally-defined cohorts which are determined by participant behavior. The second outcome metric in Figure 2, calculated as the number of participants completing the program as a percent of all program participants one month after starting the program, is an example of a metric based upon a behaviorally defined cohort.

The American Association of Community Colleges, in the development of their Voluntary Framework of Accountability (www.aacc.nche.edu/vfa), allows for the recognition that students use community colleges in a number of ways, including the acquisition of credits to apply at another college. As such, they have developed a behaviorally-defined cohort where students are only counted after they have enrolled for 12 credit hours.

Process Metrics. Process metrics are those interim measures that are connected, or statistically correlated, to outcome metrics. Figure 2 presents a number of examples for the outcomes of completion and employment rates. In higher education, these process metrics are the result of research by Ewell (2007) and Leinbach and Jenkins (2008) that identified milestone events and momentum points as they relate to student progression in college.

The intent of process metrics is to monitor those activities that will lead to the outcome metrics of interest to external stakeholders. In some cases, such as state performance funding models, these process metrics are considered outcome metrics. I argue that by achieving (process) outcomes strongly correlated with outer (outcome) metrics one is essentially duplicating the same metric. Rather, the value of process metrics comes from the brainstorming and resulting understanding of the midpoints these measures signify. If developed with the proposal development and implementation team, a proposal will generate buy-in to metrics by making them meaningful as well as serving to support the clear expectations of practitioners and further reinforcing the leadership and management needed to make a grant successful as discussed later in this essay.

Indicators. Indicators allow for the monitoring of program performance. More often than not, the indicator is framed as a comparison of one program to another. The end result of such a peer approach is often statements along the lines of, “Our program had outcomes comparable to other similar programs.” I am of the opinion that such peer comparisons are meaningless and downright detrimental to program performance because validating performance by comparing to others puts in place a mindset of acceptable failure. We have all heard others say something

along the lines of “that’s not bad for this population we are serving.”

Put simply, the indicators for your program should be levels of performance you expect to achieve as a result of implementing the program for the population your program is serving as compared to the program’s actual performance, not another program. Indicators, developed during grant development like all metrics and expected levels of performance, must be clearly set and tracked, compared to actual performance and used to improve the program – not to explain away a lack of performance. The following three sections illustrate this approach in greater detail.

Part 2: Requiring Projections

Practitioners need to recognize that funding has associated expectations. Increasingly, in the current and likely future competitive environment for funding, “blank checks” are going to increasingly diminish. This means that outcome metrics, process metrics and indicators must be detailed as part of the proposal, prior to implementation.

As an example, if the program believes that weekly attendance rates impact program completion rates, then attendance rates should be projected at regular intervals. It is reasonable to expect that, since attendees are humans, participants may miss an activity on occasion – especially as grant-funded programs tend to focus on students who may be at greater risk than the rest of the population. So, it would be appropriate for a program to set expected activity attendance rates at a certain percent. These projections must be a part of the proposal development process and as importantly accurately measured throughout the program’s implementation. Doing so will allow for the comparison of data to improve the program and support the completion of the program.

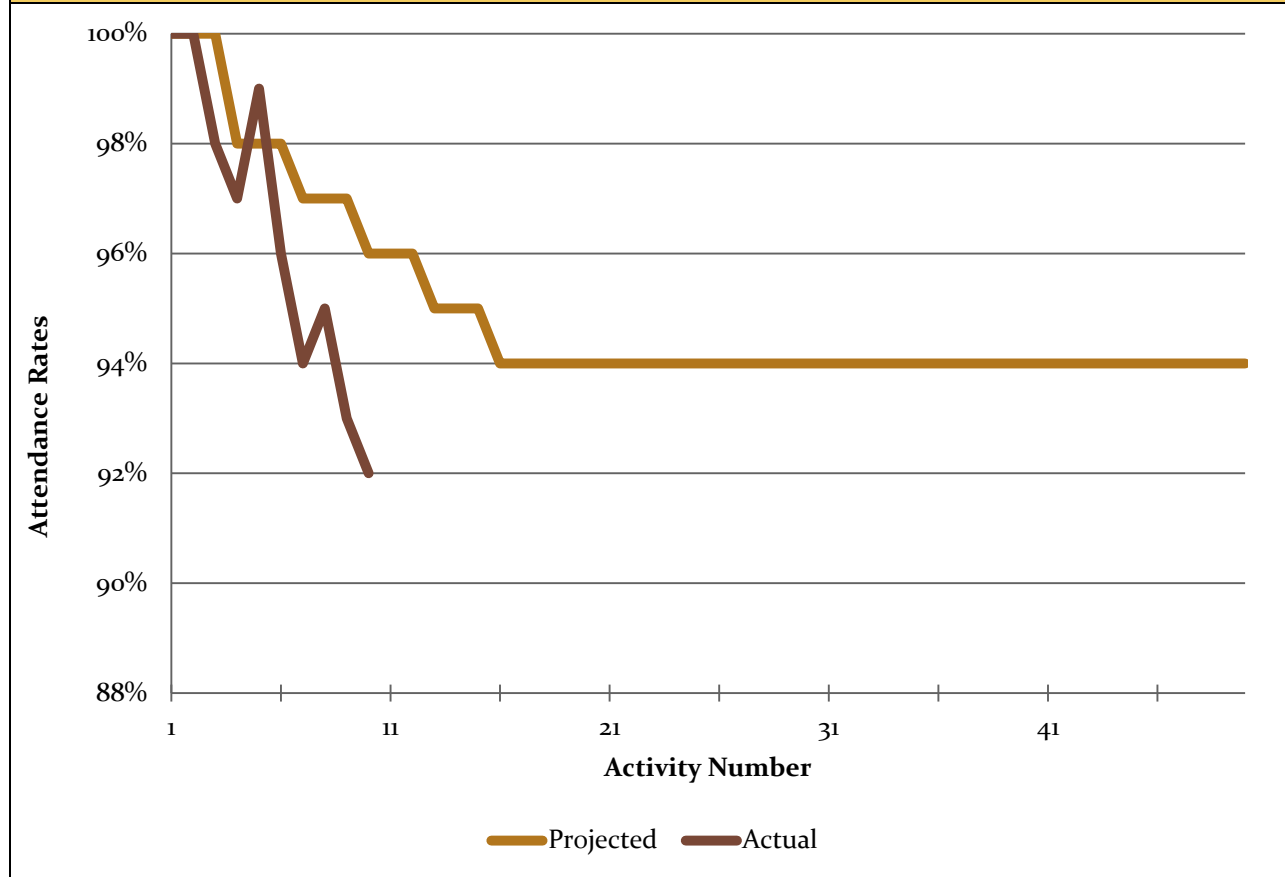
Part 3: Comparing Data to Inform Mid-Course Improvements

Comparing the data that was projected to actual data is a stronger indicator of performance than it would be to attendance in another program because of difference in program delivery such as time of day, duration, quality of experience, the availability of transportation, and other factors.

Continuing the discussion, let’s imagine that a grant program consisted of a series of 50 activities. Further, it was projected – prior to the implementation of the program – that the attendance rate for each program started at 100% for the first 3 activities and then leveled out at 94% starting at the 16th activity.

After the first 10 activities, the program the grant manager looks at the actual data as compared to the projected data with the implementation team to see if mid-course adjustments need to be made. Figure 3 illustrates the outcomes to date.

Figure 3: Projected and Actual Attendance Rates (Indicator) for Program Activities



The implementation team then examines the data to find that attendance is less than expected and will likely impact the number of participants who will complete the program. The team then can begin to use the data for program improvements rather than waiting until the end of the 50-week period, at which point it is too late to take action. These actions may include contacting students that have been absent to understand why they are missing activities or disaggregating data to see if particular sub-populations are absent more than other sub-populations. One can imagine that, upon getting more information, the program offers a catch-up day where previously offered activities are presented, individual circumstances are overcome, or delivery is reimaged to engage students in a meaningful manner--the end result being that more students attend activities and complete the program.

Part 4: Using Data to Explain Performance and Highlight Program Improvement

By considering how outcome metrics, process metrics, and indicators are implemented throughout the duration of the program prior to its implementation, a clear direction for all

involved stakeholders may be achieved. It will also result in substantive and meaningful interim reports and final reports that use data to drive the narrative rather than artifacts of simple statements of compliance coupled with justifications that other programs may be performing similarly. Review the following two program updates and see if you agree.

- “Our completion rates are comparable to similar programs.”
- “Our completion rates were higher than we initially projected. We believe a contributing reason why is that we tracked attendance rates and found that initially they were below what we expected. However, after reviewing the data 10 activities into implementation we made some adjustments that included revamping our delivery and engaging workforce partners to make the program more applied and meaningful to participants who were able to see real worked connections. The result was that our attendance rates climbed to 96%, which we believe impacted our completion rate.”

The second update provides a richer understanding of the program to the reader; it also makes writing the reports easier, and subsequently funders more engaged and likely to be supportive in those instances where the actual outcomes do not meet projected outcomes. You may also notice that the second update included examples of how the data was used to make changes to program delivery. In almost all cases I am aware of, grantees are requested to provide lessons learned from the program so that funders can, like grantees, improve. Admittedly, this approach is different, requires thought, and may be threatening. To implement it well takes a grant manager who can both lead and manage.

The implementation of this process relies not only on the structures suggested in this essay, but practitioners with the management and leadership skills necessary to implement change; something that is no small feat itself. Rather than give an extensive treatise on leadership and management, I share a few thoughts about each as they relate to grant programs from my experience as both a grantee and the manager of a multi-million dollar grant program.

Leading the Program. If the proposal is developed with implementation in mind, then the grant manager has the vision set for them. The act of leading, then, is generating the interest and belief in the grant vision set before them. It requires the grant manager to have a firm commitment to the proposal, however, as the fidelity of implementation has long been recognized as a barrier to carrying-out programs. Staff are also watching grant leaders.

I once had the opportunity to conduct a site visit where a project staff member expressed appreciation that the project was being held accountable for the actions delineated in the proposal. In the same breath, the staff member shared that the grant leader informed staff that they did not expect to meet all of the proposed activities. This is exactly the lack of commitment by leadership that leads projects to fail, often at taxpayer expense. Conversely, there may be a situation where staff are not implementing the proposed actions as planned; this requires firm but fair management.

Managing the Program, Not the Staff. Being elevated to the position of leadership is nice. It is empowering. However, while it requires weaving together disparate pieces into one it also requires one assume the responsibility to manage. And management is not nearly as pleasant.

Management requires one to set and implement a clear direction, to navigate unexpected challenges by relying on the plan not personal opinions, to facilitate tough conversations, and to make decisions that are best for the program rather than staff. All too often decisions are indefinitely delayed, and yet what is often unrecognized is that not making a decision – or inaction – is actually a decision.

In short, grant management means managing the grant, rather than the staff itself. By doing so, one can remove the personal aspect as decisions are made in terms of what is best to meet the objectives, not the wishes of staff.

Moving Forward. In this essay I shared my perspective on how grant programs can be developed with an eye towards improvement. It requires leadership, thoughtful work throughout all aspects of the program, and effective management. This level of commitment makes one vulnerable if outcomes are not met, but there is no other way to lead. Receiving a grant and the funds that accompany it is more than a mark of distinction for the institution and leader. It is more than an on-ramp to further funding. It is a commitment to deliver on what is proposed.

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CREATING AND SHARING KNOWLEDGE THROUGH COMMUNITIES OF PRACTICE

BY OSCAR FELIX

Abstract

Building a community around a shared learning interest is not a new or innovative concept. However, collective learning and information sharing can bring new perspectives and improved practices to a professional organization in need of wider member participation. Communities of Practice in the context of College Access and Success Programs provide community members with additional resources, tools, and research findings to improve student services and outcomes.

Introduction

Creating a community in which members can share knowledge enhances the quality of services to students. Practitioners benefit by receiving timely and specific knowledge that is needed to better advise and motivate students. Whether seeking research-based practices or logistical information, the over-burdened college access and success professional can benefit through engagement in a community of peers who share a common interest. A Community of Practice can simultaneously engage such professionals in promoting research endeavors, implementing research-based practices, and creating opportunities to have robust discussions on what is most beneficial to their students and programs. Learning that happens in a community of practice is not separate from professional context and identity. In this essay, I share how my experience as a student shaped my professional life and how a Community of Practice can be a way to improve our work by presenting benefits of a community of practice for college access and success professionals.

My Experience

Communities of Practice can have a profound and direct impact on student success. Research shows that a study abroad experience, for example, can make a significant impact on first-generation students. As I recall the most

meaningful co-curricular opportunity of my undergraduate experience, I know now how fortunate I was to participate in a study abroad program in London for 12 weeks. As a Pell Grant recipient in the 1980's, I was part of a small number of low-income, first-generation students who studied abroad. Living and learning in London was the ultimate academic and collegiate experience of my undergraduate years. I learned living history and political science from students and professors from South Africa, Iraq, Iran, and Saudi Arabia. We took day trips to Oxford, Windsor Castle, and Parliament, and weekend trips to Scotland and Amsterdam. At the end of three months, I was forever changed. And my new world perspective provided a global foundation for future work, professional confidence, and personal perspectives.

Empirical evidence validates my positive study abroad experience translating to success during my college years and beyond. Studying abroad is a type of transformational experience that has a strong, positive impact on student college academic performance and graduation. This rings true for me. I finished my undergraduate studies with high academic performance in my last semester, and successfully transitioned to my professional life with more confidence and a greater understanding of the world. I now am passionate about providing international study opportunities to other Pell-eligible and first-generation students.

My positive experience with international education, validated by research on its benefits, now drives my personal interest in being part of a community of practice that promotes the value of studying abroad, and provides a roadmap to make it happen. College Access and Success practitioners connected to an International Education Community of Practice, for example, can significantly increase opportunities for participation in activities that greatly benefit students. Other communities of practice can be developed based on interests driven by subjective preferences, and yet substantiated by empirical evidence on its benefits.

Knowing the powerful impact of co-curricular experiences such as study abroad, what can be done to expand these opportunities to more low-income, first generation students? Most critical is that College Access and Success staff have timely, useful, and accurate information to share with and motivate students to participate in international experiences. There are a myriad of technical and logistical questions to be answered, and staff need reliable and current sources of information to encourage a student's initial commitment and to take the initial steps in this complex process. The most helpful information will be based on sound practices that have been subject to research and evaluation processes. Each student situation is unique, and some students may require additional support, particularly with families reluctant to support their students traveling beyond the United States.

What is a Community of Practice?

As the name implies, Communities of Practice are created to support daily practice through exchange and dialogue with other college access and success professionals. Sharing a craft and/or a profession forms the basis for a group to evolve naturally because of the members' common interest in a particular domain or area. While the technical support and content knowledge are clearly important, the learning process is reinforced through networking, dialogue and sharing of effective practices, and thereby helping each other grow personally and professionally (Wenger, 1999). The concept of academic and professional learning communities has been used for years by K-12 schools to improve teaching and learning. To better support College Access and Success staff in their daily practice, Communities of Practice can be formed around different topics. Below, I discuss benefits of community of practice for college access and success professionals, and how I went about creating a community of practice.

Benefits of Communities of Practice

In the College Access and Success profession, our common interest is college degree attainment for low-income, first-generation students and other student groups underrepresented in higher education. To achieve this common goal, critical interim steps, such as secondary school success and college enrollment and persistence, must be supported. Yet, even with a robust training

curriculum for College Access and Success staff, there are gaps in knowledge about effective practices. When staff participates in learning communities where information and experiences are shared, they simultaneously increase their own knowledge base and engage with a supporting community.

Timely Information on Demand. A basic function of a Community of Practice is to disseminate timely information for College Access and Success professionals to provide better advising to secondary school students on topics such as early college planning, financial aid, academic support, and the critical transition from high school to college. Financial aid processes change every year, and these updates are critical to receiving the most financial support possible. For college success staff, information and resources on topics, such as personal identity, social justice, engagement in undergraduate research, and other high-impact experiences, can support their efforts to increase college retention. Communities of Practice facilitate information sharing from practice and closing gaps in knowledge. This additional source of professional learning improves the overall competency of staff as they seek to support students to graduation.

While it may be true all information needed already exists on the Internet, the benefit of access to relevant information when planning a complex task can make a critical difference. When visiting a new city, getting timely and accurate information about a particular activity is priceless. As a stranger to a new location, it would take considerable effort and time to personally find all the information about restaurants, activities, hotels, etc. A clear, tangible benefit of a Community of Practice is the mapping of information in a way that is readily available and easily accessible for college access and success professionals. Reflecting back to my London experience as a student, I would have benefitted from the support of a well-informed advisor as I was preparing for my study abroad experience.

I was fortunate to attend a small, private university that was truly an international university. Yet, as a first-generation college student, I could have easily been challenged by a process that entails multiple, complex steps. The benefits I received as a student in a well-informed setting also applies to college access and success professionals. For example, if a student is interested in undergraduate research and if a professional has never worked to provide such information to students, the professional needs to find out what the basic information would be most helpful to that student. How can this information be readily available to the entire College Access and Success community of practitioners? A Community of Practice is structured to facilitate timely and relevant information sharing through communication and social media platforms.

A Sustained Advocacy for High Impact Academic Activities. One area in particular where Communities of Practice can be beneficial is encouraging students to participate in high-impact academic and co-curricular activities (Kuh, Kinzie, Schuh, & Whitt, 2010). Studies show students engaged in such activities have significantly higher success rates than students who do not participate in such experiences. Some of these high-impact experiences include first-year seminars, learning communities, undergraduate research activities, internships, capstone courses and projects, and, as mentioned earlier, study abroad. The Communities of Practice, through their sustained engagement of College Access and Success professionals, can map and provide access to the wide array of information needed to effectively implement a high-impact service or activity.

Opportunity for Rising Leaders. The Communities of Practice also provide opportunities for potential and rising leaders, who typically do not attend national conferences, to be involved in leadership roles beyond their state and regional associations. An individual in an advisor or coordinator role would have the opportunity to become a Community of Practice chair, co-chair, or subcommittee chair and engage with constituents electronically and through social media. These leadership roles could leverage support from institutions to attend the national, state, and regional association conferences. Rising leaders can also build their professional and academic portfolio through involvement in research and evaluation practices, leading to improved project outcomes and increased legitimacy for the profession. Communities of Practice also build confidence, communication, and information sharing skills for emerging professionals.

Creating Community of Practice of TRIO Professionals

How to Create a Community of Practice. As practitioners, we have insights about our own capacity to provide substantive advice and support for students beyond basic program-prescribed services. We know our limits yet we want to do more. I have come to realize that guiding students towards and through high-impact practices such as study abroad is a journey identical to the college enrollment path. Along with other practitioners with similar interests, the International Access Community of Practice (CoP) was created to provide colleagues with resources and information on funding opportunities, necessary application and documentation, and other key resources needed to help student navigate the process. Money, aspiration, and information--the more I can provide to students, the closer we get to the finish line.

As College Access and Success professionals identify the need and benefits of a particular CoP, professional organizations, such as the Council for Opportunity in Education, can provide the structural and logistical support for practitioners across the nation to communicate and share relevant content and resources. While the International Access CoP has a specific area of focus, other Communities of Practice can be developed by practitioners who identify a particular area of interest.

Use of Annual Conference. Annual conferences provide a time and place for members of the Communities of Practice to meet, engage, share information, provide mutual support, and create a community based on shared interests. The leaders of the Communities of Practice facilitate discussion on current trends, ways to disseminate information, and ways to identify gaps in the knowledge needed to support its members. The conference meetings also reinforce the need for greater collaboration and mutual support.

Use of Electronic Communication to Sustain Engagement. Communication between meetings at national conferences is sustained through the use of electronic communication and social media. Numerous web-based tools for dissemination of information and community engagement are easy to use and free of cost. Traditional electronic methods include email listservs, electronic newsletters, shared document sites, websites, and links to resources. Communication through social media can include Facebook, Twitter, LinkedIn, Pinterest, and Google Plus. For professionals already engaged in social media, this approach of communication will be familiar, and will focus on distinct topics that support their practice.

In the Fall of 2015, the Council for Opportunity in Education, a membership organization of college access and success professionals, implemented its first three Communities of Practice, including the International Access CoP. This CoP provides support and information to practitioners on how to guide students through the complex process of an international educational experience. As I mentioned above, the CoP utilizes electronic communication to share learning from high-impact activities and to connect professionals working on similar issues to access to timely suggestions. The STEM CoP provides a forum for effective practices on supporting underrepresented students in the sciences to undertake and succeed in the STEM fields. The Research, Evaluation and Data Use CoP serves to encourage College Access and Success practitioners to implement practices that are based on sound research and evaluation. This CoP also serves as a forum to encourage new research activity, connect with other research and evaluation communities, and identify resources and points of collaboration and dissemination of effective practices. Encouraging a culture of inquiry, assessment, and shared knowledge in the College Access and Success community can improve program effectiveness, and cultivates legitimacy in arenas where student outcomes shape education policy that drive the future of the profession.

Reflections and Conclusion

The Community of Practice model offers added value to professional organizations striving for greater membership engagement, community building, and leadership development. The development of these communities will be an organic process in which professionals respond to an unaddressed issue or tangible benefit in their practice. Ultimately, the success of the Communities of Practice will depend largely on how professional staff perceives its value. Organizations supporting College Access and Success efforts can reinforce their mission by providing professional staff with critical and timely information and support to improve their practice, leading to better outcomes for their programs.

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UNDER THE PRESSURE TO REPLICATE “EVIDENCE-BASED” INTERVENTION, TRIO PROGRAMS SHOULD BUILD THEIR LOGICS OF EVIDENCE USE BY MIKA YAMASHITA

Introduction

In 2014, when TRIO grantees saw the instructions for the grant application for the new grant cycle of Student Support Services (SSS), they saw a new requirement. Notice of Inviting Applications for Student Support Services (SSS) issued for the 2015 Competition included a Competitive Preference Points (CPP), which states the applicants can earn up to six points by proposing two interventions that are “supported by moderate evidence of effectiveness” (79. Fed. Reg. 2014, page 79575). To show that their proposed intervention is effective, applicants had to submit one supporting study that meets What Works Clearinghouse (WWC)’s moderate evidence standards. The similar requirement appeared in 2016 in the Talent Search grant competition. To earn six points, applicants had to demonstrate that each of proposed “strategy is based on research that meets the Moderate Evidence of Effectiveness standard” (80. Fed. Reg. 2015, page 79575) and “demonstrate how the proposed project activities align with the cited study with sufficient fidelity” (80. Fed.Reg. 2015, p. 79575). It appears the competitive preference points (CPP) resulted in enforcement because the cut-off score of SSS grant application was around 104, indicating that no new program that did not have any prior experience could receive funding without earning the competitive preference points.

As a researcher for the Pell Institute, a research arm of the Council for Opportunity in Education (COE), a membership organization of TRIO and other college access and success programs, I have heard concerns about TRIO program evidence standards raised by COE and Pell staff and TRIO program directors and staff. These concerns include the requirement to replicate interventions that were developed somewhere else could

Abstract

This essay discusses the origin of the competitive preference priorities (CPP) that appeared in Student Support Services (SSS) and Talent Search grant applications in 2014 and 2015. In these competitions, CPP encouraged programs to propose evidence-based interventions. I discuss the CPP as a series of policy instruments that the federal government implemented to promote evidence-based policymaking. The idea underlying CPP is that by encouraging grantees to implement evidence-based interventions, the grant programs are likely to deliver results. One important element of this assumption is that randomized controlled trials (RCTs) are the best methods to ascertain if an intervention is effective. After describing limitations of applying findings from RCTs to improve program practice, I argue that TRIO programs need to articulate their own specific logics of evidence use that reflect how TRIO professionals work in practice. This is because RCTs alone can provide very limited information about actual interventions for TRIO professionals to improve their own programs. Research questions that reflect how TRIO programs actually work are needed.

discourage innovation among programs and whether or not there are sufficient interventions that meet WWC standards that can be implemented by SSS programs. They also cited challenges in coordinating the evidence-based services that are required by legislation within the limited program budget. The overall sentiment expressed was that CPP is another hoop TRIO programs must jump through to receive federal funding.

Like many federal education programs, TRIO programs are under pressure to show evidence that they are effective. The programs have been regularly monitored, and grantees must meet performance objectives. Prior experience points, which programs earn by meeting a set of performance objectives created at the beginning of each grant cycle, make up a significant portion of the grant scoring. This means a program must meet a set of performance objectives in order to be funded again.

In this essay, based on my reading of publicly-available documents, I discuss the CPPs as a part of policy instruments the federal government has been using to promote evidence-based policymaking. The government views requiring evidence-based intervention as one of their effective grant-making strategies. I also argue that the CPP reflects the idiosyncrasy of government policy making, where one aspect of idea is taken up and other aspects are marginalized or lost. By describing limitations of the assumptions underlying the CPPs, I discuss why it is critical for TRIO programs to identify a research agenda that reflects the actual work of TRIO professionals. While TRIO programs may view CPP as another hoop to jump through, it is important to understand the big picture because the CPP carries certain expectations about how TRIO programs should improve. The primary audience of this essay is TRIO professionals.

Origins of Competitive Preference Points Attached to Evidence-Based Interventions

The Education Department General Administrative Regulations (EDGAR), which governs grant programs, provides a legal justification of inserting CPPs in the most recent SSS and Talent Search grant competitions. Recent revision of EDGAR in 2013 is in line with the government-wide initiative to infuse evidence use in government grant making (McNail, 2013). The Office of Management and Budget (OMB) has issued guidance documents to “better integrate evidence and rigorous evaluation in budget, management, operational and policy decisions” and it recommended agencies to adopt “more evidence based structures for grant programs” (OMB, no date). A document that provided guidance on Fiscal Year (FY) 2014 budget outlines “evidence-based grants” (OMB, May 18, 2012, page 2), and one of the approaches recommended by OMB is as follows:

agencies can provide points or significant competitive preference to programs that the agency determines are backed by strong evidence, and can build the evidence base by embedding evaluation into programs. (OMB, May 18, 2012, p. 3)

As described in “Strategic Plan for Fiscal Year 2014-2018” and in the most recent “FY16-17 Agency Priority Goals,” the Department of Education continues to use competitive preference points on discretionary grant programs to “enable evidence-based decision making” (U.S.

Department of Education, 2014, 2016). The Department of Education estimates the percentage of new competitive funding that supported evidence-based projects (including strong, moderate and evidence of promise as defined by What Works Clearinghouse) in FY 15 was 16 percent, and it aims to increase it to 20 percent by September 30, 2017 (U.S. Department of Education, no date). TRIO-Talent Search is listed as one of the contributing programs, along with “various Higher Education Act Title III programs” and “Investing in Innovation Fund (i3)” for FY 16-17 (U.S. Department of Education, 2016).

The Obama Administration used grant-making as a strategy to promote evidence use to drive outcomes (Berlin, 2016; Haskins & Margolis, 2015; Nussele & Orszag, 2015). Based on interviews with over 130 individuals who were involved in the Obama Administration, Haskins and Margolis (2015) describe how the administration moved from formula grant-making to competitive grant-making. They report “the administration wanted to take advantage of the pressure created by competition to spend the money on projects that meet strong evidence criteria” (pp.29-30) and the administration assumed that competition helps to ensure “that only the highest quality applicants win funding” (p.30). The Administration viewed it as “the smarter investment” to invest in programs that can “deliver results” (Orszag, 2009).

The Obama Administration introduced tiered evidence, where programs that have “strong evidence” received more funding than programs that have “some evidence” in its signature social programs, such as Home Visitation Programs at the Department of Health and Human Services and Investing in Innovation (i3) at the Department of Education. This approach was to ensure that funded programs would deliver results and to promote innovation, as OMB described below:

For these two very different subjects (referring to Home Visitation Program and Teen Pregnancy Prevention Program), we are using a similar, two-tiered approach. First we’re providing more money to programs that generate results backed up by strong evidence. That’s the top tier. Then, for an additional group of programs, with some supportive evidence but not as much, we’ve said: Let’s try those too, but rigorously evaluate them and see whether they work. Over time, we hope that some of those programs will move into the top tier—but, if not, we’ll redirect their funds to other, more promising efforts. This design differs from the typical approach. We haven’t simply created a block grant and told states they can do whatever they want, nor have we dictated a particular program design and told everyone to follow it. Instead, we’ve said that we are flexible about the details of the program; we only insist that most of the money go toward the programs backed by the best available evidence, and the rest to programs that are promising and willing to test their mettle. (Orszag, June 8, 2009)

Other grant-making strategies OMB has recommended include use of evidence in formula grants and Pay for Success (OMB, May 18, 2012). Pay for Success forces grantees, often intermediary organizations, to have significant evidence that proposed programs will deliver results, as program success determines if applicants receive payment from the government. As it is, the CPPs included in TRIO competitions are a part of the grant-making strategy that was intended to

promote evidence-based policymaking in the federal government. The underlying assumption is by investing in programs that work, the government and taxpayers will get better results.

Spread of Evidence-Based Programs/Interventions

While the competitive preference priorities (CPPs) attached to evidence-based interventions was new for TRIO programs, there were grant programs with similar requirements prior to the Obama Administration. For example, previously “evidence-based” appears in laws related to social welfare programs, such as immunization, drug prevention, and care for mothers with new born babies, where grantees were to implement “evidence-based” assessment and practices. In education, in the late 1990s, Safe and Drug Free programs issued Principles of Effectiveness, which states programs should be “guided by research and best practices.” This guidance was later incorporated in the No Child Left Behind Act in 2001 (Weiss, Murphy-Graham & Birkeland, 2005). The Department of Education’s Safe and Drug-Free School Program gathered a panel of experts to create an evidence-based programs list. The panel reviewed programs on four criteria: efficacy, quality, educational significance, and usefulness to others, and compiled a list of exemplary and promising programs (Department of Education, 2001).

Subsequently, the federal government began initiatives to identify effective interventions, which created inventories of programs that are evidence-based. What Works Clearinghouse (WWC), created in 2002, is one of them. Some others are:

- Evidence –Based Practice Centers (EPC) by Agency for Healthcare Research and Quality (AHRQ), created in 1997, focuses on evidence on relative benefits and risks of healthcare interventions.
- The Guide to Community Prevention Services by Health and Human Services (HHS), created in 1996, provides evidence-based recommendations and findings about public health interventions and policies to improve health and promote safety.
- National Registry of Evidence Based Programs and Practices (NREPP) by the Substance Abuse and Mental Health Services Administration (SAMHSA), created in 1997, provides for the scientific basis and practicality of interventions that prevent or treat mental health and substance abuse disorders. (Government Accountability Office, 2009)

These evidence review initiatives were to provide information to professionals, policymakers, and researchers about effective interventions by reviewing studies. Each initiative created its own evidence standards, reporting template, and review guidelines. According to a report published by the Government Accountability Office (GAO) in 2009, the review process was in general similar across the initiatives, but there were some variances. While randomized controlled trials (RCTs) and quasi-experimental studies are the most commonly reviewed study designs across the initiatives, Evidence-Based Practice Centers (AHRQ) and Guide to Community Preventive Services (CDC) also review observational studies, such as time series and case control studies. While the What Works Clearinghouse (WWC) did not assess implementation fidelity, four other initiatives explicitly assess intervention fidelity “through either describing in detail the intervention’s components or measuring participants’ level of exposure” (GAO, 2009, p. 15).

These resources, procedures, and experiences of identifying, reviewing, and rating studies and interventions since the late 90s contributed to the Obama Administration’s evidence-based initiatives.

Spread of the Idea of Causality as Effectiveness

The underlying idea of attaching competitive preference points (CPP) is that the programs will produce better results by implementing evidence-based interventions. Evidence standards set by WWC determine if an intervention is evidence-based because the study design must meet WWC’s design standards and also show positive results. According to the WWC, only RCTs potentially meet design standards without reservation and certain RCTs and quasi-experimental studies with comparison groups potentially meet WWC design standards with reservations (What Works Clearinghouse, 2014). According to the Notice of Inviting Applicants of the SSS grant, the study has to show “statistically significant favorable impact” (79. Fed. Reg. 2014, page 75724). This view of effectiveness as determined by causal relationship between an intervention and outcomes has been in place for over a decade in the Department of Education and the federal government at large.

The Institute of Education Sciences (IES) established What Works Clearinghouse (WWC) in 2002. The goal of WWC is:

to be a resource for informed educational decision making. To reach this goal, the WWC identifies studies that provide credible and reliable evidence of the effectiveness of a given practice, program or policy (referred to as “interventions”). (WWC, no date)

WWC defines “effectiveness” as follows:

an intervention demonstrates effectiveness if the research has shown that it caused an improvement in outcomes. (WWC, no date)

The Department of Education promoted this idea of effectiveness since early 2000. IES Director Grover (Ross) Whitehurst’s presentation at the American Educational Research Association (AERA), after the passage of Education Science Reform Act of 2002, which created the Institute of Education Sciences (IES), states IES’s position: “Randomized trials are the only sure method for determining the effectiveness of education programs and practices” (Institute of Education Sciences, no date).

A report by Congressional Research Service (CRS) published in 2006 illustrates the spread of the idea that RCTs is the best way to determine program effectiveness within the Department of Education and at the Office of Budget and Management (OMB). The Department of Education published “Notice of Final Priority” in November 2003 to clarify “scientifically based research” stated in the No Child Left Behind Act (NCLB) and to make it a priority to be used for all programs beyond those funded by NCLB, which became effective in February, 2005. The final notice states:

The definition of scientifically based research in section 9201(37) of NCLB includes other research designs in addition to the random

assignment and quasi-experimental designs that are the subject of this priority. However, the Secretary considers random assignment and quasi-experimental designs to be the most rigorous methods to address the question of project effectiveness. While this action is of particular importance for programs authorized by NCLB, it is also an important tool for other programs and, for this reason, is being established for all Department programs. Establishing the priority on a Department-wide basis will permit any office to use the priority for a program for which it is appropriate. (70. Fed. Reg. January 25, 2005, p. 3586)

A similar message appeared in another publication by the Department of Education, “Identifying and Implementing Educational Practices Supported by Rigorous Evidence: A User Friendly Guide,” which was to “provide educational practitioners with user friendly tools to distinguish practices supported by rigorous evidence from those that are not” (Brass, Nunez-Neto & Williams, March 7, 2006, page iii). CRS summarizes:

guidance asserted that evaluation methods other than RCT and certain quasi experiments (1) have no meaningful evidence’ to contribute to establishing whether an intervention was ‘effective’ and (2) cannot be considered ‘scientifically-rigorous evidence’ or ‘rigorous evidence’ to support using an educational practice to ‘improve educational and life outcomes for children. (Brass, Nunez-Neto & Williams, March 7, 2006, p. 25)

The Office of Management and Budget (OMB) also promoted this conceptualization of program effectiveness during Bush Administration with the technical assistance from the Coalition for Evidence-Based Policy, a private non-profit organization (Brass, Nunez-Neto & Williams, March 7, 2006, Coalition for Evidence Based Policy, no date). “What Constitutes Strong Evidence of a Program’s Effectiveness” in 2004 is a guidance document to support agencies with reporting on The Program Assessment Rating Tool (PART), a set of questions asked to agencies to draw conclusions about program benefits and recommendations to improve programs. PART asked if an evaluation conducted for its program is sufficient in scope and quality and if the evaluation indicates the program is effective. The guidance document states:

The most significant aspect of program effectiveness is impact—the outcome of the program, which otherwise would not have occurred without the program intervention. While it is feasible to measure the impact of the program, RCTs are generally the highest quality, unbiased evaluation to demonstrate the actual impact of the program. (Office of Management and Budget, 2004)

Similarly, a guidance document for FY 2007 PART reporting describes:

most significant aspect of program effectiveness in impact—the outcome of the program, which otherwise would not have occurred without the program intervention. A number of evaluation methodologies are available to measure the effectiveness of programs. Some, such as randomized controlled trials, are particularly well suited

to measuring impacts. Quasi-experimental studies should be scrutinized given the increased possibility of an erroneous conclusion. (Office of Management and Budget, January 29, 2007, pp 30-31)

The promotion of these specific conceptualizations of “effectiveness” and “evidence” by the executive branch has drawn attention from legislative offices. Over a decade ago, the Congressional Research Service (CRS) produced a report that describes design features of RCTs and potential issues the Congress might encounter in the future (Brass, Nunez-Neto & Williams, March 7, 2006). GAO’s report in 2009 on the Coalition for Evidence Based Policy’s Top Tier Evidence Initiative, which identifies interventions that meet Coalition’s top tier evidence standards, compared the Coalition’s review process with the review process taken by six federally-funded evidence review initiatives, such as What Works Clearinghouse (WWC) and National Registry of Evidence Based Programs and Practices (GAO, 2009). These reports presented limitations of the RCTs’ research design and for making policy decisions. For example, one of the conclusions by GAO report was:

Requiring evidence from randomized studies as sole proof of effectiveness will likely exclude many potentially effective and worthwhile practices. (GAO, 2009, cover page)

Prior to these reports, the research community raised concerns about a specifying research design for the purpose of improving knowledge about education because scientific inquiry uses multiple types of research design. In 2001, during the time Education Science Reform Act was in the Congress, the National Research Council gathered a Committee on Scientific Principles for Education Research, which produced guiding principles for scientific inquiry. In the report, after acknowledging that a part of the Committee charge was to provide recommendations to improve education research, the report states:

attempting to boost the scientific basis of federally funded education research by mandating a list of “valid” scientific method is a problematic strategy. (National Research Council, 2002, p. 130)

It appears these concerns were not reflected in the guidance and regulations developed by the federal government. It may be possible that policy makers i.e., government officials, legislative staff, and advocacy groups who were involved in policymaking, limited their frame of reference to what they saw as manageable (National Research Council, 2002). From reading Haskins and Magolis (2015)’s report on how Obama Administration’s transition team, government officials, legislative staff, and advocacy groups crafted evidence-based initiatives and how grant competitions and selection criteria were developed, it seems the notion of effectiveness equals causal relationship had been institutionalized. Disagreements discussed in their report centered around whether evidence-based programs should be limited to programs supported by RCTs only or should be expanded to programs supported by quasi-experimental studies, as it determines which model programs would be replicated by grantees. It appears there was no question about the assumption that replicating evidence based intervention is most likely to deliver results.

Limitations of Evidence-Based Interventions

TRIO programs raised concerns when they learned about the competitive preference points (CPP). The concerns derive from the limitations of RCTs for informing practice, which I describe below.

Lack of External Validity. Even when RCTs are well-designed and well-implemented, they are limited in external validity. An intervention that showed positive results in one site does not guarantee the intervention will produce the same effect in other sites. The study tells the intervention worked in a certain context in which the experiment happened. Sometimes grant programs assign higher scores to interventions that are found to be effective in multiple sites. For example, the Corporation for National and Community Services' AmeriCorps grant competition provided more points to a proposal that proposed an intervention that had been tested nationally or in multi sites, while if applicant submitted a study that was conducted in one site, they received lower points (Corporation for National and Community Services, 2015). However, as of now, there are not many replication studies in education. The Department of Education asked SSS applicants to submit one study that includes "a sample that overlaps with the populations or settings" that meets the definition of moderate evidence of effectiveness; however, there was no further definition of what it means by "population" and "settings."

Another difficulty surrounding multiple replication studies seems to be that programs improve. The excerpt below, by a CEO of Building Educated Leaders for Life (BELL), a program that provides after school and summer learning experience for high risk students, describes these limitations of RCTs.

Even when we are successful generating good evidence, the story of what works is still incomplete. Even when we have well-conducted, highly rigorous studies, there are still limitations in what they tell us about the real nature of social problems, interventions, and changes in the lives of those we reach. As an example, even when randomized controlled trials tell us the story of an organization's work at one point in time, five years later most organizations' work has evolved. So at its best, good evidence is still incomplete."

Obtaining evidence is risky. ... So you do a randomized controlled trial, and it says your program works. It's not the end of the story. It worked for some group of kids in some context at some point in time, and so we should celebrate that and make sure that's understood. And your randomized-controlled-trial study two years later might say, 'It doesn't work for kids or families.' And so there, too, we don't want to unfairly punish an organization without understanding that in context. So this risk, I think, is something we'll have to pay more attention to across sectors (Nussle & Orszag, 2015)

Meta-analysis compiles results from multiple RCTs to generate an overall effect of an intervention implemented across different populations or settings. Systematic review could include other study designs and narrative synthesis to inform conditions that might have led to better results, such as minimum duration of intervention exposure and conditions. However, users of the review also need to determine the applicability of the results of these reviews (Brass, Nunez-Neto & Williams, March 7, 2006). For example, the guidance document by Cochrane Review, which conducts systematic reviews of evidence on healthcare treatments and products, describes the importance of readers to make informed decisions about applicability of findings of systematic review and meta-analysis as follows:

Another decision users must make is whether the patients before them are so different from those included in the studies that they cannot use the result of the systematic review and meta-analysis at all.... Authors can sometimes help clinical decision makers by identifying important variation where divergence might limit the applicability of results, including: biologic and cultural variation, variation in adherence to an intervention. In addressing these issues, authors cannot be aware of, or address, the myriad of differences in circumstances around the world. They can, however, address differences of known importance to many people, and importantly, they should avoid assuming that other people's circumstances are the same as their own in discussing the results and drawing conclusion. (Higgins & Green, 2011).

Complexity of Intervention. Another limitation is that social service and education interventions studied are actually complex with high “causal density” (Manzi, 2010, 2012). An intervention studied includes many causal relationships that researchers cannot separate out. For example, if an after school tutoring program was an intervention, the intervention happens in a context that was enabled by tutors and students who may have different characteristics and intentions. Tutors may use various strategies, and they may have various levels of knowledge, including tacit understanding of how things work in a specific school, and they may approach their work differently. So, when this after school tutoring showed effectiveness in improving students’ math skills, it is difficult to know how the combinations of components led to effectiveness. As it is, “RCTs typically do not assess how and why impacts occur, how a program might be modified to improve program results.” (Brass, Nunez-Neto & Williams, March 7, 2006, page 16). Thus, even if the evidence-based intervention is identified, programs have to find ways to make the intervention work. To support implementation, some research reports include contact information for implementation support, logic model, theoretical framework, and minimum dosage; however, replication is not straightforward.

Furthermore, because the result of an RCT stems from one intervention, an important question for programs is how interventions can be coordinated so the programs can produce outcomes.

RCTs also typically do not provide a full picture of whether unintended consequences may have resulted from a program or indicate whether a study is using valid measures or concepts for judging a program's success (e.g., assessing a study's or a measure's construct validity). Many of these kinds of questions have been considered to be more

appropriately addressed with observational or qualitative designs.
(Brass, Nunez-Neto & Williams, March 7, 2006, p. 16)

This limitation applies to research syntheses because they often focus on outcomes that are determined by the reviewers. Finally, there is a gap between “effective intervention” and decision-to-adopt intervention because “deciding to adopt an intervention involves other considerations in addition to effectiveness, such as cost and suitability to the local community” (GAO, 2009, cover page).

Taken together, although the federal government intended to improve TRIO programs by implementing evidence-based interventions, because of the design limitations of RCTs, TRIO cannot simply replicate the interventions. The way the Competitive Preference Priority (CPP) policy instrument was presented to TRIO programs minimized one critical aspect that is necessary for delivering results, i.e., consideration of what it takes for professionals to make decisions on how to implement the “evidence-based” interventions.

Need for Logics of Evidence Use in TRIO Programs

Discussions in evidence-based practices in medicine, social services, and education have highlighted the complexity of professionals’ work, partly because there is a tension between research knowledge and practitioner knowledge when evidence-based practice policies are put in practice. Drawing upon this line of discussion, I argue that TRIO programs need to draft logics of evidence use and demand research that aligns with how TRIO professionals work.

Over the decades, clinical knowledge has been considered to be a critical component for practicing evidence-based medicine, as the definition of evidence-based medicine below indicates.

Evidence based medicine is the conscientious, explicit and judicious use of current best evidence in making decisions about the care of individual patients. The practice of evidence based medicine means integrating individual clinical expertise with the best available external clinical evidence from systematic research. (Sackett, et al, 1996, p. 71)

In evidence-based medicine, it is widely accepted that “any clinician who feels restricted to behave only as the evidence dictates is missing the concept of evidence based medicine” (Stevens & Hootman, 2004, page 84), and it requires “bottom-up approach” (Sackett, et al. 1996, page 72). Similarly, researchers have discussed the importance of professional knowledge in evidence-based practice in education. For example, Davis (1999) states in his article titled, “What is evidence based education?” as follows:

Establishing best practice, in both education and health care, is more than a matter of simply accessing, critically appraising, and implementing research findings. It also involves integrating such knowledge with professional judgment and experience (Davis, 1999, pp.116-7)

However, as exemplified in the CPP and other guidelines, there is little acknowledgement about the role of professional knowledge in policies that promote evidence-based practice in education and social services. Policy instruments project an image that professionals should replicate evidence-based interventions. As Thomas Archibald (2016) reported in his study, there is a risk that this simplified view of replication is manifest in the implementation of evidence-based interventions in the federally funded programs. His study found status differentials of knowledge produced scientists and local programs, which consequently challenges the ideal of evidence-based intervention movement. During implementation, the program developer makes a tacit adaptation of interventions based on their “more privileged position as expert knowers while community educators feel limits placed on their agency to respond to and adapt to the needs and realities in their local communities” (Archibald, 2016). I argue it is important for TRIO programs to examine the idea and practice of “evidence-based,” because this issue involves “welfare of very many people, not just the egos of a few” (Scriven, 2008, p.24)

Practitioner-Researcher Differences in Clinical Needs and Notions of Causality. To argue against the simplified notion of evidence-based practice, researchers have discussed that knowledge which comes from research and knowledge for the needs of professionals are different. Knowledge from external research, i.e., RCTs or synthesis of RCTs, does not fully meet the knowledge needs of professionals. This line of discussion suggests that for TRIO programs to improve practice, they need to articulate how TRIO professionals work and they need to identify research questions that reflect TRIO professionals’ work.

Burton and Chapman (2004) reviewed the concept of “causality” on which “evidence-based practices” hold. They argue that causality in RCTs and the causality professionals use in their work differ, thus, over-reliance to external clinical evidence, which derive from RCTs, does not reflect how health care and social services professionals make decisions about what intervention they should provide to their clients. They argue that theory or conception of causality by healthcare and social service professionals is a “generative model of causality” where “causation can be identified in the activation of an internal potential of a system or substance, under particular conditions, to generate particular outcomes.” Thus, useful knowledge for professionals should “capture the complexity of the context of application via provision of an account of the relationships among at least the following elements: context, participants, practices, causal mechanisms, regularities and outcomes” (Burton and Chapman, p. 9). On the contrary, the concept of causality underlying evidence identified through RCTs “associationist model,” which “assumes causation is invisible, so the only way to establish what causes what is to rule out ‘spurious associations’ between independent and dependent variables.” (p. 13). Similar to the challenge associated with high “causal density” in an intervention, the external clinical evidence does not necessarily provide all the information professionals need to make causal inferences to do their work.

Professional decision-making includes more than complex causality. Biesta (2007) argues that professionals sometimes do not do the most effective practice because of the consequence of one effect on another. Thus, “in education means and ends are not linked in a technical or external way but that they are related internally or constitutively” (Biesta, 2007, p. 10), and value and ethics play part. Hammersley (2001) adds another level of complexity. Professionals do not always deal with an individual student, but a group of students with different levels of motivation and different goals, so the same action of a professional can have multiple consequences, which

are differentially distributed across students. Hammersley (2001) discusses conceptualizing educators work as a series of linear process from information to practice has a limitation (Hammersley, 2001).

These discussions on how professionals make decisions explain the challenges TRIO professionals face when they are asked to replicate evidence-based interventions. TRIO program professionals must decide how to implement evidence-based interventions in relation to context, value, other interventions, and what is seen as best for students who are in a particular high school or college setting that promotes certain values and behaviors. The complexity of professionals' decision making includes the fact that they have to deal with not only multiple causality between action and outcomes, but also causalities operating in different time frames, layers of context, beliefs, and values.

Professional Learning. While the above discussion highlights what constitutes as needed information for professionals, discussion about how professionals improve their practice highlights the importance of clinical knowledge and the role of external research knowledge in the integration with professional knowledge. Biesta (2007) discusses, by drawing upon John Dewey's conceptualization of learning, that experimentation and reflections are important part for professionals to change their actions. According to Dewey's theory, professionals continuously build knowledge as they interact with the world. Thus, knowledge produced in the past, including knowledge from research and experiences (including lessons learned from trial and error), helps professionals by providing hypothesis for intelligent problem solving, but it does not tell them what they should do. For professionals, "the only way to use this knowledge is as an instrument for undertaking intelligent professional action" (Biesta, 2007, p. 17). Since problem-solving for professionals is context-specific and the context changes constantly, "for Dewey, professional action is not about following tried and tested recipes, but about addressing concrete and in a sense, always unique problems" (Beista, 2007, p. 16). If we follow this notion of how professionals work, professionals have to be reflective of what they know, how they know, and how their knowledge, belief, and actions are shaped by surroundings, and they are to continue to refine their working knowledge of what works and how to make it work, so they can take "intelligent professional action" (Beista, 2007, p.17).

This point that professionals' learning involves experimentation and theory building is important. Studies have shown that when teachers change their instructional practices, they need to make sense of why and how a specific instruction strategy works, and to change their strongly held belief of what works, they need to experience success as they try new instruction in their classrooms (Coburn, 2001; Spillane, Reiser & Reimer, 2002). Their sense-making shapes how they implement it, and the change of practice happens when research evidence is connected closely with the situation where they improve practice (Simons, et al., 2003).

Burton and Chapman (2004) propose to take a notion of practitioner as theorists. They present exhaustive list of types of information (including research and non-research information) that shape various sub-decisions that lead to a decision of what intervention to provide to a client. They make a point that knowledge from RCT "always leave gaps" in information and professionals have to "fill in the gaps" by using various sources of information (Burton & Chapman, p. 20). Similar to Biesta's (2007) argument about how professionals develop "intelligent professional action," they argue that " 'evidence' that does not engage with these

practical theories is likely to have little impact on practice, and hence on the outcomes experienced by the people served” (Burton and Chapman, p. 20).

Varieties of Implementation of Evidence in TRIO. Based on brief conversations with TRIO programs, I developed the impression that TRIO programs are implementing evidence-based interventions in various ways. There are theories programs used to select a specific evidence-based intervention and decide when and how to replicate the evidence-based interventions in their programs. I think it is important for TRIO programs to document their theories and identify questions that will help them to build and refine these theories. I think TRIO programs should demand these questions be researched. Of course, it is unlikely that each research question will be studied, but I think the research question should start from the work of professionals by articulating why and how that can be a guide for professional action. And we should be very clear that the research does not provide us with a recipe, but it is professionals who decide how external evidence can be integrated into their work, if at all. Rather than being subordinate to the notion that they have to implement evidence-based interventions, I think TRIO programs should step back and intentionally observe and articulate what is the logic of evidence use in TRIO programs.

But how can we move ourselves to articulate and address important questions? How can we articulate our logic? After experiencing programs that required grantees to use “evidence-based” intervention, I think the grant-making field is becoming more aware of the limitations of an overreliance on evidence-based intervention. For example, Wandersman and colleagues (2016) report that the 2015-2020 Teen Pregnancy Prevention grant program by the Office of Adolescent Health at Health and Human Services “has taken lessons” (p.14) from the previous grant cycle of 2010-2015 that required applicants to implement evidence-based interventions from its list. The new grant cycle still requires grantees to implement evidence-based interventions from the list, but it also includes funds to provide capacity-building assistance to organizations on implementing evidence-based interventions. I think it is a hopeful sign because it opens up a space for a discussion on how to make evidence-based intervention work and how to take up local knowledge. I hope the grant-making of TRIO programs will be affected by this policy shift.

Going back to the question of how we can go about articulating our logic and how we can generate questions, I list ongoing activities in the TRIO community and resources that could contribute to supporting each program. As I discussed above, because the professional’s work involves complex decision making, what is important could vary, and it is the professionals who have to make intelligent decisions. There is not one size fits all approach for professionals to articulate logics for evidence use. So, I list some of the resources and tools that may be helpful. Regional meetings and conferences can be a place where TRIO practitioners can compile research questions and look for knowledge resources. TRIO program personnel view these meetings as helpful and they get ideas for improving their practices. It would be helpful as a community to know how this learning process happens, and if there are better ways to promote knowledge sharing and transfer.

- **Logic model:** As a part of online community of practice activity, TRIO programs have shared tools that can be used for better program planning and evaluation. As described during the webinar of the COE’s Research, Evaluation, and Data Use Community of

Practice (CoP), a logic model is a helpful tool to document theories and gap in knowledge (Wahl, April 20, 2016). Logic models could be also helpful for assessing if intervention is ready to be researched (Epstein & Klerman, 2012).

- **Development of evaluation capacity:** Program evaluators have developed tools, assessments, and guiding questions that can be used in the program meetings and to develop evaluation capacity (for example, Buckley, et al, 2015 on teaching of evaluative thinking, which provides strategies and examples of activities for promoting evaluative thinking). Action research, as shared in the CoP webinar, can provide contextualized knowledge to fill in the gap between what is known from external research and how it is rolled out in a program (Arreola, Pena, et al., 2015; Rohse & Kaplan, January 28, 2016). Empowerment Evaluation has been used in public health programs and there are tools developed to support programs bridging the gap between evidence-based interventions and practice. For example, Getting to Outcomes (GTO) provides 10 steps for organizations to plan, implement, and evaluate their programs (Rand Corporation, no date; Wandersman, et al., 2016) to educational organizations. Both action research and empowerment evaluation take the importance of context in which the program unfolds, which TRIO practitioners also need to be able to articulate when they develop the logic of their work.

Final Thoughts

In this essay, I portrayed CPP as a reflection of idiosyncrasy in policymaking, which consequently minimized the considerations of how professionals learn and improve practices. I think this is a lost opportunity for both the federal government and TRIO programs. Some TRIO programs took CPP as a hoop to jump through, which will possibly lead to symbolic adoption of a new practice.

I argued that TRIO programs should draft logics of evidence use that align with their work and generate research questions. How to develop organizational capacity to use evidence is an important element for program improvement, but policy instruments that TRIO programs came across did not highlight it, and it is often told at the end of the program cycle. I am throwing out a proposal that this often-invisible process be documented, shared, and discussed, so programs can use their logics of evidence use as levers to ask for knowledge that they need for program improvement.

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CHAPTER III

THE RELATIONSHIP BETWEEN RESEARCH AND PRACTICE: THE RECENT LANDSCAPE

TRIO, THE WHAT WORKS CLEARINGHOUSE, AND THE COMPETITIVE PREFERENCE PRIORITIES (CPPs): AN IMPOSED STRUCTURED PRACTITIONER-RESEARCH COLLABORATION

BY MARGARET CAHALAN

Abstract

The “imposed structure” of incorporating competitive preference priorities (CPPs) for the use of evidence-based strategies as defined by the What Works Clearinghouse (WWC) has the potential to fundamentally redefine the relationship between practice and research within federal grants in education. Given the focus of this compilation on practitioner-research collaboration in this essay, we explore the implications of these new regulations and associated competitions for TRIO programs and service. We present an overview of the WWC history and the content of the reviews in the areas of relevance to TRIO. Then we review the results of the specific application in the SSS competitions. Finally we discuss the limitations of using the WWC and give some reflections on making the use of “evidence based research” more helpful.

Reflecting the articulated commitment of the Obama administration to foster the increased use of “evidence” based policies to achieve program goals, in 2013 the Department of Education regulations known as EDGAR were officially modified to allow the Secretary of Education to foster increased use of “evidence-based” strategies through the awarding of competitive financial advantages to programs that have “evidence of success” (Federal Register 2013-08-13). These modifications provided authority to the Secretary to use “absolute priorities” or “competitive preference priorities (CPPs)” in grant competitions to give priority to those projects that were using “evidence-based” practice, and that proposed to evaluate these practices using rigorous evaluation procedures. The definitions of and standards for “research evidence” specified in the EDGAR regulations were those adopted and put forth by the What Works Clearinghouse (WWC).

These new EDGAR regulations were consistent with the 2012 OMB circular calling for using Competitive Preference Priorities (CPPs) in competitions for existing programs that are “difficult to change.” TRIO became an obvious target for applying the new regulations as the largest discretionary competitive grant program in the U.S. Department of Education which is intentionally structured to have a high level of ongoing funding of existing programs. Discretion was exercised by the Secretary to use the CPPs for the next TRIO competitions following the above noted formal modification of the EDGAR regulations that occurred in 2013. The Student Support Services (SSS) competition in 2015; the Talent Search competition of 2015-2016, and the Upward Bound

competition of 2016-17 each utilized CPPs as a method of fostering the implementation of evidence-research based strategies. This “imposed structure” of incorporating competitive preference priorities (CPPs) for the use of evidence-based strategies as defined by the What Works Clearinghouse (WWC) has the potential to *fundamentally redefine the relationship between practice and research within federal grants in education*. Given the focus of this compilation on practitioner-research collaboration in this essay, we explore the implications of these new regulations and associated competitions for TRIO programs and services.

Specifically in this essay we:

1. Give a brief overview of the history and the definitions developed by the WWC;
2. Present an overview of the *Interventions, Single Study Reviews, and Practice Guides* in the WWC that are within the two content areas of most relevance to TRIO (*Pathways to Graduation and Postsecondary*);
3. Use SSS as an example and present some preliminary data on the impact of the CPP points on the 2015 SSS competition scores; and
4. Discuss the identified limitations to use of the WWC and give some reflections on making the “using evidence based research movement” more useful.

Overview of the What Works Clearinghouse (WWC) History and Growth as the Major Arbiter of Research Legitimacy for Federally Funded Education Programs

The WWC was established in 2002 by ED with a formal mission to “*be a resource for informed education decision making*” by identifying those interventions “that work” so that practitioners could have increased guidance to inform practice. The Clearinghouse was also charged with producing user-friendly guides for educators on effective instructional practices in order to understand what instructional programs have been shown to be effective. The WWC replaced the ERIC annotated bibliographies and research summaries that had been developed in the 1980-1990s to provide summaries of research in the field. The website asserts that for over a decade, the WWC has been “a central and trusted source of scientific evidence for what works in education to improve student outcomes.”

Contract Organization and Costs. The work of the WWC is conducted under a set of contracts held by several leading firms with expertise in education and research methodology, and managed by the Institute for Education Sciences (IES), the unit in ED focused on research and evaluation. Since its inception in 2002, ED has held competitions at roughly five-year intervals for the major contract to implement and manage the WWC. Periodic smaller competitions for additional work have also been held. The major contractors in 2017 were Mathematica Policy Research (MPR), Development Services Group (DRS)—responsible for postsecondary reviews, Inc. and Sanametrix, Inc. The WWC is not an inexpensive operation. The costs of the WWC contracts since 2006 have averaged well over \$10 million per year across the major contract and sub-contracts.

Enshrining the WWC in U.S. Department of Education Regulations. As noted, the *Notices of Inviting Applicants* for the most recent TRIO grant solicitations programs utilize the procedures, definitions and ratings developed by the What Works Clearinghouse (WWC 2014). Following the general guidance from OMB, ED has taken a tiered approach that has three levels that are summarized below. Figure 1 gives the definitions of Randomized Control Trial (RCTs) and Quasi-Experimental Design (QED) needed to meet the Moderate Evidence requirement of the CPPs.

- **Promising for developmental studies**—Strong theoretical conceptualization and correlational evidence
- **Moderate Evidence**—Meets WWC methods standards “with or without reservations.” This involves interventions that have at least one well-designed and implemented Randomized Control Trail (RCT) or at least one well-designed and implemented Quasi Experimental Design (QED) that allows establishing a positive significant and substantive causal inference between the intervention and outcomes and no negative significant relationships. Based on this evidence, interventions studied are evaluated as “effective,” thus “evidence-based.” Well-executed RCTs can meet WWC standards “without reservations.” Well-executed Quasi-experimental designs (QED) can meet WWC standards “with reservations.”
- **Strong Evidence**—Meets WWC methods standards “without reservations” with significant positive outcome and substantive effect size. This involves interventions that have at least one well-designed and implemented RCT that establishes significant and substantive positive relationships and no negative relationships.

Rationale of the CPPs. While the Trump administration in its FY2018 budget proposals has seemingly returned to and extended the Bush Administration’s tactic of selectively using research evidence to support its proposals for advancing, cutting or eliminating federal programs, the Obama Administration articulated a more systematic approach. This approach fostered evidence-based policy making and use of evidence as keys to “make government work effectively” (OMB, May 18, 2012; OMB 2016). The government-wide strategies sought to allocate more funds to programs that were supported by stronger evidence, and to require rigorous evaluations to produce “strong” evidence. This policy included supporting social innovation funds in which the government paid more to programs that could meet required outcomes. For existing grant programs, the OMB encouraged agencies to “provide points or significant competitive preference priorities to programs that are backed by strong evidence” (OMB, May 2012). These strategies were based on the idea that the government should invest taxpayer money on programs that are most likely to bring results (Haskins and Margolis, 2014; Orszag 2009).

Figure 1: Definitions of two methodologies that would meet the Moderate Level of Evidence as defined in the Department of Education *Student Support Services Applications for New Awards* notice

Randomized controlled trial means a study that employs random assignment of, for example, students, teachers, classrooms, schools, or districts to receive the intervention being evaluated (the treatment group) or not to receive the intervention (the control group). The estimated effectiveness of the intervention is the difference between the average outcome for the treatment group and for the control group. These studies, depending on design and implementation, can meet WWC Evidence Standards without reservations.

Quasi-experimental design study means a study using a design that attempts to approximate an experimental design by identifying a comparison group that is similar to the treatment group in important respects. These studies, depending on design and implementation, can meet WWC Evidence Standards with reservations (they cannot meet WWC Evidence Standards without reservations).

Applications for New Awards; Student Support Services Program A Notice by the [Education Department](#) on [12/18/2014](#))

The Movement from Studying Outputs and Outcomes to Using Research Evidence. Newcomer (2016) has done historical research tracing the growth of emphasis within government agencies from what she calls a stress on measuring “outputs and outcomes” to the use of “Demonstrated Evidence-Based Interventions” (DEBIs). She outlines the movement from reports such as the Hatry’s (1967) Senate report on Measuring Program Effectiveness, and groups such as the World Bank calling for developing outcome measures of the 1990s and the Government Performance Results Act (GPRA) of 1994 to the Executive Order of the Bush Administration establishing the Program Assessment Rating Tool (PART). Faced with intense criticism of the Bush OMB PART order, the Obama Administration discontinued PART and subsequently issued new OMB Guidance on Tiers of Evidence that form the basis of the Obama Administration’s approach. Newcomer also identifies key challenges faced with regard to the use of DEBIs and concludes that there is an overstating of the “ease of the flow of evidence to practice.” She cites key challenges, including inadequate attention to support factors and understanding the way causal mechanisms need to work together to produce expected results, and the focus on replication with fidelity rather than adapting models to changing contexts. She also notes that measuring fidelity of implementation and impact are very expensive and often difficult ethically.

The Shift from Asking “Does this Program Work?” to Asking “What Strategies Work and Under What Circumstance?” Under the Obama administration there was a change to move away from the emphases on evaluating federal programs as a whole which had dominated the period of the 1970s to the early 2000s to a move to look at the efficacy of specific strategies within a program. Given the broad sweep of federal programs usually intentionally allowing a range of services to achieve goals, the overall program evaluations suffered from a lack of clear

specification of the actual “treatment” being studied and also a lack of control over the extent to which the control group or comparison group was also getting the services due to ethical considerations. They tended to be black-box evaluations with numerous study error issues, but they were often used to justify reduced or level funding, or in the case of the Upward Bound program, using what were later found to be “error filled” conclusions, to justify the “zero funding” recommendations of the Bush Administration’s budgets in FY2005 and FY2006 (Cahalan and Goodwin, 2014). To some extent, this shift to focus on specific strategies offered a relief from the defensive position in which most federal programs increasingly found themselves at the end of the 20th century due to these overall evaluations.

Researcher-Practitioner Collaboration--The Logic Flow of the Goals of the CPPs.

Figure 2 outlines the logic flow of the articulated goals of the use of the CPPs in the TRIO competitions held under the Obama Administration. As stated in the “Invitations to Apply”, ED articulated the belief that use of evidence-based practices will result in both “*a better competition and in better results for students.*” **ED also articulated its interest in possibly partnering in research with the grantees in the priority topic.** As the logic flow indicates, there is anticipated spillover impact toward increasing general evidence-based practice and research use throughout the government and in non-profit social programming. The 2015 SSS application stated:

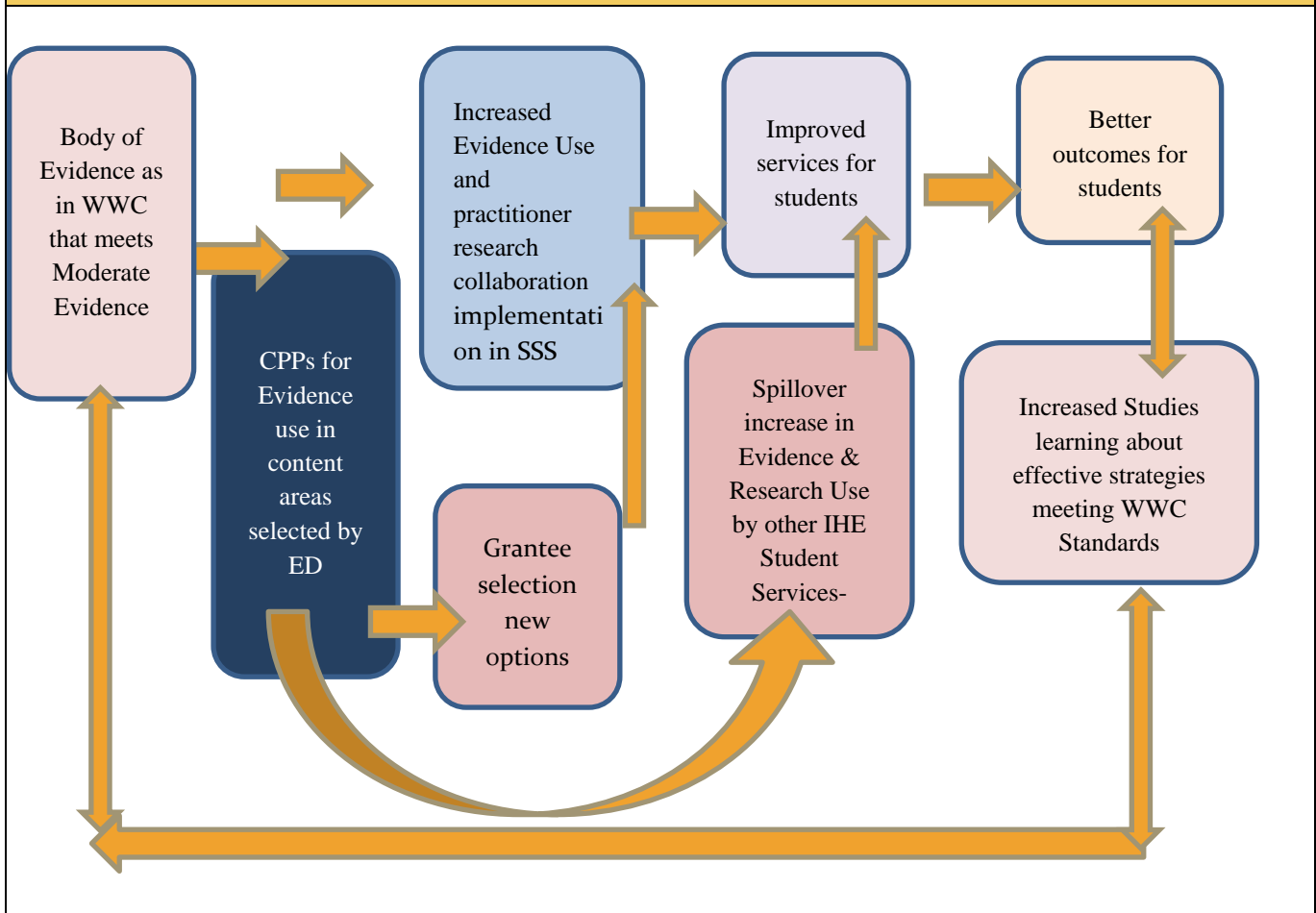
*“In recent years, the Department has placed an increasing emphasis on promoting evidence-based practices through our grant competitions. We believe that encouraging applicants to focus on proven strategies can only enhance the quality of our competitions and the outcomes of students who participate in our programs.....**The Department is sufficiently interested in this priority topic that we may later seek to partner with successful applicants to conduct research and evaluation**” (2015 Invitation for Applications for Student Support Services Grants).*

Selected Related Research on Research Evidence Use. While the use of evidence-based practices within the U.S. Department of Education is too new to have a large body of information, scholars have generally been more cautious about the promise of evidence-based policymaking than government agencies. Sutherland and colleagues observed that “the normative claim that policy should be grounded in an evidence base is itself based on surprising weak evidence” (Sutherland et al; 2012, cited by NRC, 2012). A report entitled the *Science of Using Science* from the EPPI Center at the University of London (Langer et al., 2016) presents results from a comprehensive meta-analysis of the efficacy of various strategies to increase research use by decision makers.

The EPPI report found some evidence of positive effects with the following interventions:

- Those that facilitated active access to research evidence through communication and evidence repositories;
- Those that built on decision-makers' skills to access and make sense of evidence, and
- Those that foster changes to the decision making structures, incentives, and processes.

Figure 2: Logic flow of goals and anticipated outcomes of Competitive Preference Priorities (CPPs) for Research Evidence Use and Increased Practitioner-Research Collaboration as articulated in U.S. Department of Education's 2015 *Invitation for Applications for Student Support Services Grants*:



Review of WWC Relevant Interventions, Single Studies and Practice Guides

The WWC does not purport to be a source for meta-analysis or systematic review of the literature on a given topic such as is the approach of groups such as the EPPI center at the University of London, or even in a less systematic manner to take the approach of the ERIC Topical Literature Reviews of the 1990s.

The WWC has evolved over time since its inception, but not in the direction of meta-analyses. Initially, there was more of a focus on named “Interventions,” for which there could be a search of the literature for research with regard to a given named “intervention.” This approach has a number of pitfalls, including the fact that the named “interventions” often were dynamic programs that changed over time, and that often few studies could be found that met the standards, and these were not necessarily representative of the project at the current time. More recently, there seems to be a greater focus on Single Study Reviews and Practice Guides. The three types of reports constituting the current searchable WWC data base are:

- Intervention Reports;
- Single Study Reviews, and
- Practice Guides.

The WWC initially was primarily focused on K-12 topics; however, prompted by the increased use of the WWC data base for postsecondary federal competitions, there has been additional focus in college access and success topics and strategies since 2012. These are categorized under the key words “Pathways to Graduation” and “Postsecondary” in the WWC data base. Figures 3-6 summarize the results of the WWC reviews for *Intervention Studies* and for *Single Studies* in these two areas.

The Category of “Intervention Studies” Reviewed. Figure 3 gives summary information and Figure 4 lists the names of the “Interventions” that have been reviewed by the WWC under the general categories of *Pathways to Graduation*, which may involve either high school or college graduation; and under the category *Postsecondary*. Interventions are cross-listed in the system so that all of the 7 Interventions listed under *Postsecondary* are also listed under *Pathways to Graduation* category. As of December 2016, there were 35 named “Interventions” that had been reviewed. Typically this means that more than one potential study has been found, or that the named program has been around for more time. Among those *Interventions* without any studies meeting standards there are a number of well-known programs. Of the 35 *Interventions* that WWC studied in these topic areas, 13, or 37 percent, had no study that met the methods standards for the WWC. Those without any studies meeting the methods’ standards cannot be reviewed as to effectiveness by the WWC. Notably this listing of programs with “no studies” meeting the WWC methods standards includes well-known programs such as “I Have a Dream,” “Puente,” “Residential Learning Communities,” “Communities in Schools,” and several others (see those coded as 99 in Figure 4).

Figure 3: *Intervention Reports* (Typically includes a body of studies on a named intervention) for the topical categories of *Pathways to Graduation* and *Postsecondary* as of December 2016

Topical Classification	Number of interventions in data base under the topic (note there is double listing)	Number of interventions listed with no studies meeting WWC methods standards	Number with at least 1 study meeting WWC methods standards with or without reservations	Number with at least one significant positive result	Percent of Interventions reviewed with no positive results (either no studies met the methods standards or met and no impact)
Pathway to Graduation	35	13	22	14	60%
Postsecondary	7	1	6	3	57%

NOTE: all of the interventions listed under the topic of Postsecondary are also listed under the topic of Pathway to Graduation. Interventions listed on WWC website as of December 2016.

Figure 4: Listing of the “Interventions” reviewed in What Works Clearinghouse under the categories of “Pathways to Graduation” and “Postsecondary”: December 2016 (Some programs are double counted under both categories)

Name of Intervention	Year of Review	Methods rating: 99 = none met standards 1 = Met without reservation 2 = Met with reservation 3 = mixed of 1 and 2	Effectiveness rating: 3 =Positive 2=Potentially positive 1 = Mixed 0 = No discernable impact - 1= Potentially negative -2 =Negative 99= No studies met standards	Highest effect size reported	Number of studies meeting methods standards of those reviewed
<i>Pathways to Graduation section (35 Interventions Reviewed)</i>					
1. ACT/SAT Test Preparation and Coaching Programs	2016	1	3	8	6 of 27
2. First Year Experience Courses for Students in Developmental Education	2016	1	0	0	1 of 19
3. Career Academies	2015	1	1	11	1 of 9
4. Check & Connect	2015	1	1	30	2 of 3
5. Credit Recovery Programs	2015	99	99	99	NA
6. Reconnecting Youth	2015	99	99	99	NA
7. Linked Learning Communities	2015	1	0	0	4 of 16
8. Residential Learning Communities	2015	99	99	99	NA
9. National Guard Youth ChalleNGe Program	2015	1	2	23	1 of 4
10. Service and Conservation Corps	2010	2	0	0	1 of 1
11. Communities in Schools	2010	99	99	99	NA
12. Youth Build	2009	99	99	99	NA
13. High School Puente Program	2009	99	99	99	NA
14. Coca-Cola Valued Youth Program	2009	99	99	99	NA
15. Summer Training and Education Program (STEP)	2009	1	0	0	1 of 1
16. I Have a Dream	2009	99	99	99	NA
17. Middle College High School	2009	1	0	0	1 of 1

18. Talent Development Middle Grades Program (TDMG)	2009	99	99	99	99	NA
19. Wyman Teen Outreach Program (TOP)	2009	99	99	99	99	NA
20. New Century High Schools	2008	99	99	99	99	NA
21. Accelerated middle schools	2008	1	2	35	35	3 of 3
22. Job Corps	2008	1	1	13	13	1 of 1
23. JOBSTART	2008	1	2	14	14	1 of 1
24. First Things First	2008	1	0	0	0	1 of 3
25. New Chance,	2008	1	1	8	8	1 of 1
26. Belief Academy	2007	99	99	99	99	NA
27. Project COFFEE	2007	0	99	99	99	NA
28. Project GRAD	2007	1	0	0	0	1 of 3
29. Quantum Opportunity Program	2007	1	0	0	0	1 of 2
30. Talent Development High Schools	2007	1	2	0	0	1 of 2
31. High School Redirection	2007	1	1	3	3	3 of 3
32. Twelve Together	2007	1	1	13	13	1 of 2
33. Financial Incentives for Teen Parents to Stay in School	2007	1	1	6	6	2 of 2
34. Talent Search	2006	1	2	17	17	2 of 3
35. ALAS	2006	1	2	42	42	1 of 1
Postsecondary category (7 Interventions Reviewed)						
1. ACT/SAT Test Preparation and Coaching Programs	2016	1	3	8	8	6 of 27
2. First Year Experience Courses	2016	1	3	9	9	4 of 97
3. Summer Bridge Programs	2016	1	2	3	3	1 of 1
4. First Year Experience Courses for Students in Developmental Education	2016	1	0	0	0	1 of 19
5. Developmental summer bridge programs	2015	1	0	0	0	1 of 10
6. Linked Learning Communities	2014	1	0	0	0	4 of 16
7. Residential Learning Communities	2014	99	99	99	99	NA

The Category of “Single Studies” Reviews. Over time the WWC developed more emphasis on what they call “Single Study Reviews.” Of 160 single studies under *Pathways to Graduation* for which methods were rated, there were 36 studies that met the methods standards, and 23 of the 160 also had a least one positive result—about 14 percent. Among those categorized as

Postsecondary, about 212 were reviewed for methods, and of these, 62 met the methods standards. Of the 212 studies, there were 44 that both met the methods standards and had at least one positive result (21 percent of total reviewed). Note that *Single Studies* like the *Interventions* may be doubly classified under *Postsecondary* and *Pathways to Graduation*. Considering all topics, there are about 2,349 total *Single Studies* that have had methods reviewed and are classified in the WWC data base.

A review of the single studies (both impactful and not impactful) reveals that many of the strategies examined in the *Single Study* reviews (and also the *Intervention* reviews) have similar conceptual frameworks and seemingly are implementing similar practices. This suggests that differential judgements as to whether there is positive impact may be more about the study structure, the context, and comparison group-counterfactual differences rather than the differences in the strategies. Additional work is needed to assess if there is a pattern of differences between those strategies that show positive impact and those that show no impact.

One also notices that the role of the WWC in the federal grant competitions, especially the TRIO postsecondary grants (SSS), Talent Search (TS), Upward Bound (UB) which have required use of *Single Study* reviews, have resulted in an increase in both the number and the percentage of studies in the WWC in these areas that have positive impacts. Thus the WWC's role of doing somewhat systematic reviews of an "Intervention" has evolved to focus on *Single Studies* and Practice Guides focusing on those studies with positive results.

The Category of "Practice Guides." Since its inception, the WWC has published 22 Practice Guides. Of these two are classified under *Pathways to Graduation* and one under *Postsecondary*. These are: *Helping Students Navigate the Path to College: What High Schools Can Do*, published in 2009; *Dropout Prevention* published in 2008; and *Strategies for Postsecondary Students in Developmental Education – A Practice Guide for College and University Administrators, Advisors, and Faculty* published in 2016. The 2016 guide lists six recommendations that range from minimal to moderate in evidence rankings by the WWC. The recommendations are as follows:

1. Use multiple measures to assess postsecondary readiness and place students.
2. Require or incentivize regular participation in enhanced advising activities
3. Offer students performance-based monetary incentives.
4. Compress or mainstream developmental education with course redesign.
5. Teach students how to become self-regulated learners.
6. Implement comprehensive, integrated, and long-lasting support programs

Figure 5: Results of Searching WWC *Single Study Review* Category under Path to Graduation and Postsecondary: December 2016

Type of Report	Number of Single Studies with methods rated	Number meeting methods standards with or without reservations	RCT	Quasi-Experimental	At least one positive RCT	At least one Quasi Experimental positive	At least one positive result	Percent that met standard and had at least one positive result
All topics in WWC	2349	877 (37% with or without) --572 without --322 with	576	597	145	87	280	12%
Pathways to graduation	160	36 (29% with or without) --24 without; --15 with;	33	23	20	3	23	14%
Post-secondary	212	62 (29% with or without) --37 without; --25 with	38	24	26	17	44	21%
NOTE: Numbers do not sum to totals due to double listing and multiple methods								

The Special Case of the National Evaluation of Upward Bound. The 2009 Practice Guide entitled *Helping Students Navigate the Path to College: What High Schools Can Do*, prepared by Mathematica Policy Research, included a review of the then recently-released National Evaluation of Upward Bound final report (Sefter et.al. 2009) and also the Mathematica UB evaluation Third Follow up report released in 2004 (Myers et.al. 2004). The review ignored the fact that the original and final two technical monitors for the long-running study in the U.S. Department of Education had, after a Quality Assurance Review that involved both external and internal analysis of all the data files from the study, found that the Mathematica reports in 2004 and 2009 were seriously flawed in their conclusions that the UB program had no discernible impact on postsecondary entrance or degree attainment other than the attainment of vocational certificates. In contrast, the analysis done by the Department of Education technical monitors had found that Upward Bound had statistically significant and substantial positive impacts on postsecondary entrance, financial aid award, and degree attainment (Cahalan and Goodwin 2014; Cahalan, 2009). Despite replication of the technical monitors’ findings by Nathan, 2013; and Harris, Nathan, Marksteiner, in 2014, the Practice Guide has not been corrected in its reporting

concerning the Upward Bound Program. The flawed Mathematica study has had a negative impact on Upward Bound program's reputation and identity as an effective college access program. The corresponding undeserved "ineffectual PART rating" led to zero funding requests in the FY05 and FY06 Bush Administration budget requests. This experience has led to a profound mistrust among the TRIO practitioners to contract evaluation research studies that is only now beginning to be overcome.

Using the 2015 Student Support Services (SSS) Competition as an Example: Preliminary Data on the Impact of the CPP Points in the Competition Scores

As the data above indicates, there are not a large number of strategies that meet the WWC methods standards, have positive results, and also are feasible within the legislatively-defined service and funding options of the SSS program. Moreover, those strategies that are applicable and have positive impacts often have relatively small effect sizes. For the 2015 SSS competition, the Department of Education identified two priority areas. The substantive areas in which the Department invited CPP Submissions were:

- Strategies to Influence the Development of Non-Cognitive Factors Supported by Moderate Evidence of Effectiveness (up to 3 points)
- Providing Individualized Counseling for Personal, Career, and Academic Matters Supported by Moderate Evidence of Effectiveness (up to 3 points)

As part of the SSS competition, the Department provided to applicants citations for three specific research articles applicable to the priority areas (See Figure 6) that the WWC had determined both met the methods criteria and had at least one positive result.

Figure 6: Relevant articles provided by the Department of Education to SSS applicants as already reviewed by the What Works Clearinghouse (WWC)

- **Social belongings intervention:** Walton, G. M. & Cohen, G. L. (2011). *A brief social-belonging intervention improves academic and health outcomes of minority students*. Science 331, 1447-1453
Online Available: <http://www.sciencemag.org/content/331/6023/1447.full>
- **Difference education intervention:** Stephens, N M., Hamedani, M G., & Destin (2014). *Closing the social-class achievement gap: A difference-education intervention improves first-generation students' academic performance and all students' college transition*. Psychological Science 1-11. Online Available: <http://www.psychology.northwestern.edu/documents/destin-achievement.pdf>
- **Individualized Counseling-Inside Track:** Bettinger, E. & Baker, R. (2011). *The effects of student coaching in college: An evaluation of a randomized experiment in student mentoring*. Online Available: https://ed.stanford.edu/sites/default/files/bettinger_baker_030711.pdf

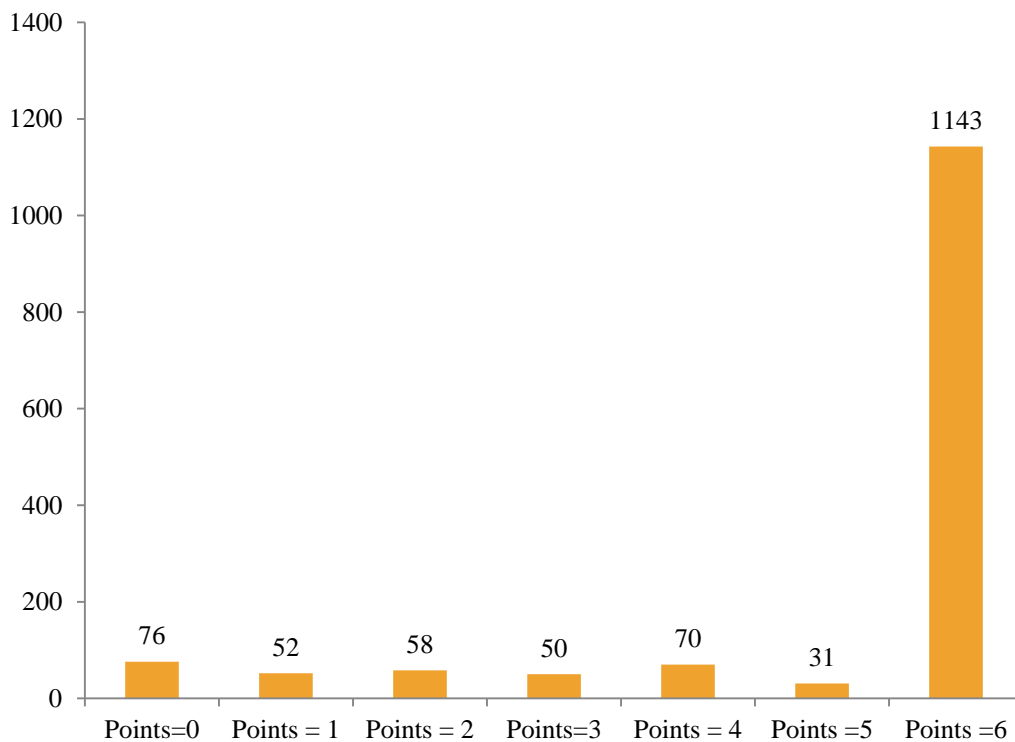
SOURCE: U.S. Department of Education Application for 2015 SSS Grant Cycle.

One of the two studies in the non-cognitive topic area was an experimental intervention that took about one hour to implement (Walton, G. M. & Cohen, G. L., 2011). The small sample from a selective university was 37 Blacks and 33 Whites. Modest positive impacts were observed for Blacks but not Whites when compared to a comparison group, which was given a one-hour session that did not involve the social belonging element. The other study in the “non-cognitive” priority area was an orientation experiment for first-generation students that involved about three hours (Stephens, N M., Hamedani, M G., & Destin, 2014).

The one study citation given by ED for the individual counseling priority area involved a randomized control trial with 3,527 students for an intervention of the use of a commercial on-line software tool for college coaching and mentoring –Inside Track (Bettinger, E. & Baker, R. (2011). This research found a 4 percentage point difference in 12-month persistence, but no differences in completion of a degree in 4 years. One might expect that in the case of SSS, the expected impact would depend on how different this was from what the projects were already doing.

SSS applicants were free to find and submit other articles within the priority areas that met the WWC criteria and had at least one positive result; however, out of some 1,500 applicants, only 17 applicants identified another intervention study that met the criteria. The competition for TRIO grants is very intense, and in order to be competitive, it is necessary to successfully address the competitive priorities. The data displayed in Exhibit 5 confirms that 95 percent of the applicants chose to address the CPPs and over three-fourths (77 percent) were able to obtain the full 6 points, which means that they proposed to implement the specific research-based programming in both of the areas (non-cognitive and student coaching). A review of their status as “new” or “previously funded” applicants indicates that most of the applicants who did not choose to address the CPPs were new applicants. Given SSS scoring, it was not possible for new applicants to win unless they addressed the CPPs. The cut-off scores each cycle depend on the amount of funding available relative to the number of applicants. For 2015, there were 1,480 applicants and 1,071 awards. The cut-off score was 104, meaning that a new applicant would need to get a perfect or near perfect score on the Project Design section (worth 100 points) and also obtain 4 of the 6 CPP points. In the TRIO competitions held every five years, existing projects may earn up to 15 extra points for meeting their objectives specified in the previous cycle years. These points are called Prior Experience (PE) and are tabulated by an independent contractor based on submitted performance reports. These points give existing projects an edge, and there is a high degree of project continuance. The experience of past competitions funding cycles, in which about 2/3 of applicants are funded and 1/3 are not funded, led COE to advise applicants to try for the CPP points even if they believed they would get most or all of the Prior Experience (PE) points for the cycle.

Figure 7: Total Number of SSS IHE Applicants Getting Various Numbers of CPP Points in 2015 Competition



NOTE: SSS Applicant Score File Prepared by Office of Federal TRIO Programs for this Submission January 2017.

Discussion of the Identified Limitations to the Use of the WWC and Reflections on Making the “Evidence Based Practice” Movement more Useful

As discussed, the Department of Education has chosen the WWC Standards as the way to provide an authoritative independent judgment concerning what constitutes “research evidence” for implementation of its CPPs. *The use of WWC contractor ratings has the advantage of removing ED from technical decision making in this regard, and in having published standards available to all.* However, throughout its history, since the early 2000s, IES and the WWC have not been without criticism, and these limitations can be expected to influence the efforts at implementation of the increased evidence use in the federal education programs.

Below is a summary of some of the critiques of the WWC, followed by some ideas moving forward that might lead to a more meaningful use of research to foster program improvement.

- ***Favoring Research Capability over Need for Services.*** One of the criticisms of the CPPs for 2015, in the public comment period, was that the CPPs would promote undue preference to research institutions and put smaller, less resourced, rural, and minority-serving

institutions at a disadvantage in the grant-writing competition process. Over time, the larger IHEs with grant-writing staff increasingly submit grants written by professional grant writers other than the TRIO staff at the institution. For example, several of the larger IHE's now have multiple SSS grants--(Regular, STEM, Disabled, Veterans). Commenters questioned whether the Department was not putting "Research Capability" over the "Need for Services." Additional research is needed to observe if this was indeed the case.

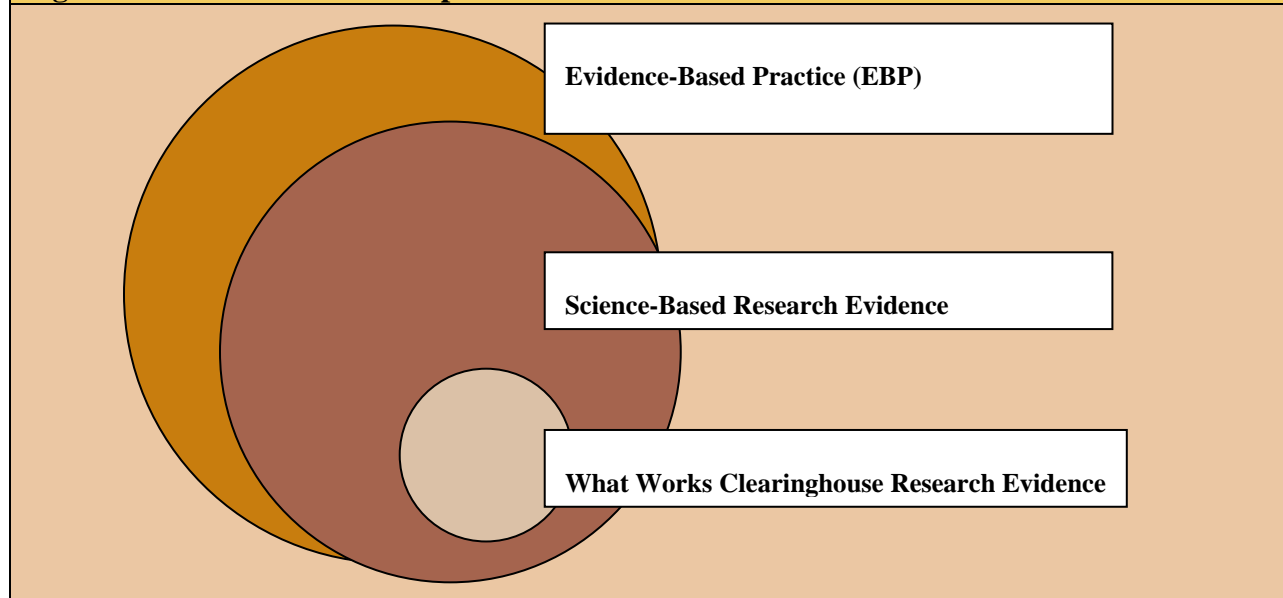
- ***Narrowness of WWC Compared to Wider Conceptualizations of Evidence to the Exclusion of Those Practices that Might be of Most Benefit.*** Another criticism of the WWC as the arbiter of which practices are to be promoted concerns the narrowness of the standards for what constitutes "evidence." The methods favored by WWC ignore a wide body of non-experimental observational science. Those of us who have attempted to implement ethical random assignment studies in the time-sensitive area of college access know that it is only feasible to implement a very narrowly-focused random assignment in which almost equally resourced interventions are offered and then it becomes very difficult to assess impact.

We can distinguish three concepts relating to research evidence of which the WWC definition is the narrowest:

1. WWC Standards Based Research Evidence;
2. Science-Based Research Evidence, and
3. Evidence-Based Practice (EBP).

Figure 8 illustrates our conceptualization of these three types of research based evidence in terms of the narrowness of the concepts. *Evidence-Based Practice (EBP)* is an encompassing concept that takes into account the "built up clinical knowledge," client interactions, implementation findings, as well as *Science-Based Research Evidence* (Soyden and Palinkas 2014). *Science-Based Research* is defined more broadly than the WWC ---*as research activity that employs systematic, empirical methods to address a specific question.* The *WWC Standards Based Definition* is the most narrowly defined of the three. As the tables above demonstrate, the WWC Standards Based determination of research evidence is comprised of far fewer studies. By the end of 2016, there were about 44 single studies in the WWC that were in the area of Postsecondary-- and that met the WWC Standards ---and that had at least one statistically significant positive finding.

Figure 8: Three Nested Concepts of Evidence



- **Questions about Utility and Validity of Research Rankings of WWC.** In the early days of the WWC most of the focus was on K-12 rather than postsecondary education. Hence, most of the critiques have addressed the ratings of the studies and conclusions with regard to the interventions at the K-12 level. Alan Ginsberg and Marshall Smith (2016) conducted a review of 27 RCT studies of math curricula in the WWC, and found that 26 of the 27 had serious threats to validity or usefulness other than that of the selection bias that the RCT method controls. Moreover, they note that the magnitude of the error generated by the threats was often greater than the average effect size of the RCT treatment. They recommended a panel of experts and users be established to consider how to improve the WWC criteria and standards for review.
- **High Level of Changes in Ratings.** Other critiques have noted the high rate of changes in WWC ratings following a request for a re-review of the findings, usually by study authors. For example, the National Institute for Direct Instruction (NIFDI) filed a Freedom of Information Act request for data on the results of the Requests for Reconsideration made to the WWC. NIFDI found that of the 69 requests reviewed 54 resulted in changes in ratings. The NIFDI reviewers also pointed to the high rate of exclusion of research studies as not meeting the WWC criteria. NIFDI has been among the most severe of the critiques of the WWC, especially related to the WWCs conclusions with regard to their highly studied reading curriculum. Siegfried Engelmann, founder of Direct Instruction, notes: “Unfortunately, the WWC has failed to live up to its promise. The WWC’s reports promote curricula that the scientific community has found to be ineffective and inefficient and denigrate those that the scientific community has found to be highly effective.”

Englemann concluded that the WWC was so “irreparably biased that it would have to be thoroughly reoriented and reorganized under different management rules to perform the function of providing reliable, accurate information about what works.”

<http://www.nifdi.org/research/reviews-of-di/what-works-clearinghouse>.

After filing the FOIA request from the WWC, NIFDI researcher Wood (2014) summarized the issues:

With the information provided from the FOIA request and the publicly available information, three conclusions appear clear: 1) The WWC suffers from a lack of transparency in their policies and guidelines, 2) the conclusions they create in their reports can be misleading, and 3) the reports are potentially damaging to program developers and ultimately the success of students (Wood, 2014).

- ***Small Percentage of Studies Meeting WWC Methods Criteria and Low Effect Sizes.*** A recent review (Malouf D. and Taymans 2016) of the total WWC “Interventions” reviewed points out (as have others) the small percentage of studies meeting the methods criteria. They also noted the small effect sizes of those studies that were listed as meeting criteria and having positive results. The authors concluded:

Most interventions were found to have little or no support from technically adequate research studies, and intervention effect sizes were of questionable magnitude to meet education policy goals. These findings painted a dim picture of evidence based on education interventions and indicated the need for new approaches including a reexamination of federal reliance on experimental impact research as the basis for gauging intervention effectiveness (Malouf D. and Taymans, 2016).

- ***Lack of Concern for the Differences in “Treatment Contrast.”*** Other researchers, outside and inside the context of WWC criticism, have noted the importance of the “treatment contrast” and point out that the differential results of RCTs may often have more to do with how the study is structured and different counterfactuals than with the differences in the interventions. These critiques stress the importance of measurement of both the treatment and control groups’ level of receipt of the intervention or its equivalents (Weiss, Brock, and Bloom, 2013). The “business as usual” practices for comparison may also include substantial practices that are similar to the interventions being studied (Heckman, 2002). To understand the treatment contrast a researcher must examine the intervention related experiences of both treatment and control group members.
- ***Unwise Linking of Funding Decisions to Research Findings.*** Political rhetoric and policy of the last 40 years has tended to support the linking of funding decisions to evaluation outcomes. This is a dangerous policy that risks failure to serve the most needy and vulnerable persons, and also mediates against honest and fair evaluations that lead to improved services. As Haskins and Margolis (2014) point out:

In our view, an important part of a comprehensive, evidence-based strategy will be continuing the funding of programs with initially discouraging evaluations. Part of the federal evidence-based culture should be that federal agencies will work with programs, and continue their funding, as long as they are using evidence to improve their outcomes and are showing some progress (Haskins & Margolis, 2014).

- ***Promotion of Formulaic Implementation of Handful of Superficial, Standardized One Size Fits All Strategies.*** As the review of single studies that have both met the WWC standards requirements and also have achieved some statistical significance revealed, there is a limited range of strategies that can be studied with an RCT design that does not involve IRB-prohibited denial of services. The tendency for most TRIO programs to attempt to replicate the same studies can lead to a less creative response to changing situations and co-learning that takes into account the differing situations and needs of students. There is insufficient attention to what works and for whom and under what circumstances (Imai and Ratkovic, 2013; Weis, Bloom, and Brock, 2013; Gamoran 2014).
- ***Demonstrating the Need for Research over Service Needs.*** Related to the above comments, practitioners fear that their service programs will be turned into permanent pilot demonstration grants, and that those sites that are not able to do this or do not wish to do this, will gradually be competed out of service. Researchers like to cite lack of positive findings as a justification for increased need for more research projects and may have a house bias towards study designs unlikely to produce positive outcomes. Researchers such as Jon Barron of the Coalition for Evidence Policy states that: “The better the evaluations, the more likely they are to show that some programs do not produce significant impacts.” Baron goes on to report that, out of 90 interventions evaluated by randomized control trials (RCTs) paid for by IES since 2002, 88 percent were found to have weak or no positive effects. Similar results are produced by RCTs of clinical interventions in medicine (Coalition for Evidence-Based Policy).
- ***Danger of Favoring of One Intervention over Another with Sparse Evidence.*** There are serious issues in favoring one type of intervention based on a single study that does not usually make precise comparisons across strategies or programs. The counterfactual is typically simply “business as usual,” which can mean a variety of unmeasured contrasts. There could also be potential conflicts with the authorizing legislation for the federal programs which allow a wide range of services. Potentially an unfair advantage is given to those projects for which the “favored” intervention is appropriate or even feasible.

Ideas Moving Forward

Given these criticisms, the following are six ideas concerning use of evidence moving forward.

1. ***Decouple Funding Decisions From Results of the Evaluations.*** This coupling discourages innovation and thoughtful implementation and mediates against on-going learning from evaluations.

2. ***Address the Serious Validity and Reliability Concerns That Have Been Raised Concerning Validity of WWC Results.*** The WWC provides a formulaic way to address OMB requirements, because it seemingly is clear and definitive, but like the standardized tests, it is unclear that its overall impact is positive in terms of best practice in education.
3. ***Align the WWC Standards with Other National Standards,*** such as those of the Joint Committee on Education Program Evaluation Standards; NCES Statistical Standards, and AERA Standards for Research Publications.
4. ***Broaden the Definition of Research Evidence*** to include Evidence-Based Practice (EBP) and Science-Based Research Evidence and invite thoughtful consideration of how best to serve students. Consider meta-analyses and weight of evidence, more nuanced approaches.
5. ***Consider the Implications for Students if Most Projects Implement the Same “Cookie Cutter” Strategies*** regardless of context and the range of services available at the institutions. Consider the students’ real needs and the program’s own “niche” in the institution or the community.
6. ***Consider New Evaluation Methods Such As Empowerment, Participatory and Collaborative Evaluation*** (Federman et. al. 1996; Chinman et.al, 2004; Chinman et.al. 2008, CDC Cox et.al., 2010). Consider methods that stress a deeper understanding of context and researcher-practitioner-client interactions. As A. Gamoran (2014) notes:

To date, many rigorous studies treat programs as if they were black boxes, seeking a positive or negative judgment without aiming to understand how the outcomes are reached. The next generation of policy research in education will advance if it offers more evidence on mechanisms so that the key elements of programs can be supported, and the key problems in programs that fail to reach their goals can be repaired (Gamoran, 2014).

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RESULTS OF THE ASHE-PELL COLLABORATION'S EXPLORATORY LANDSCAPE SURVEY BY MIKA YAMASHITA

The federal TRIO Programs are one of the oldest groups of higher education social programs, which originated from the Economic Opportunity Act of 1964 and the Higher Education Act of 1965 in response to the Civil Rights movement and the Johnson Administration's War on Poverty. The programs have infrequently had national evaluations focused on the effectiveness of the program as a whole. However, there is little systematic documentation of what individual programs may be doing to evaluate their programs and how they may or may not be using research for program development. Although an evaluation plan is required in the grant proposal, grantees are not required to submit their evaluation reports. For grantees, submission of an annual progress report (APR) is required by the Department of Education. In addition, there are no funds specifically allocated for evaluations. While we know that TRIO practitioners regularly exchange ideas and best practices during an annual conference, regional conferences, and other occasions, we do not know how TRIO practitioners generate knowledge and refine their programs or how they use research and evaluation in this process.

The Landscape Survey addresses this gap in the knowledge in the TRIO community, i.e., how do TRIO programs use research and evaluation, how do they conduct their own program evaluation, and what is the landscape of TRIO practitioner knowledge? A principal goal of the survey was to collect information that can promote future discussions about how to better promote research and evaluation use among TRIO programs. In this report, after presenting the survey and response rate, observations, and recommendations for further research are presented.

The Survey, Response Rate, and Respondent Characteristics

Survey Development. Based on the consensus built during the first Collaboration meeting in September 2014 that the ASHE-Pell Institute Collaboration would conduct an exploratory survey on TRIO programs to address these questions, a team of ASHE and Pell Collaboration members generated core questions and drafted question items between April and July 2015. The survey was to collect descriptive information on the following topics:

Abstract

This paper summarizes results from a survey called the ASHE-Pell Institute Collaboration Landscape Survey. The purpose of this survey was to acquire descriptive information about how TRIO directors had used research and evaluation to inform their program planning, how their program had conducted evaluation, and what effective strategies and practices their programs used.

1. Where do TRIO directors seek information to inform their practice and how helpful are these sources?
2. Do TRIO directors use research and evaluation to plan their program? If so, what types of research do they use and how do they use it?
3. What challenges do TRIO directors encounter to use research and evaluation?
4. Do TRIO programs conduct evaluations of their own program? What types of evaluation do they conduct? Who conducts the evaluation? What data do they use for evaluation? How do they use the evaluation?
5. Do TRIO programs collaborate with other organizations or units to do evaluation?
6. What questions do TRIO directors want to ask that would help to improve their program?
7. What is the landscape of practitioner knowledge? What are effective strategies or practices that TRIO programs are using?

The survey included 80 question items, of which 11 were open-ended questions.

Survey Administration and Response Rate. The Pell Institute distributed the online survey to a total of 1,427 TRIO directors who are members of the Council for Opportunity in Education (COE). COE is a membership organization of which TRIO programs are a majority of its membership pool.¹ On July 28, 2015, Pell Institute staff sent an e-mail that described the purpose of the survey and encouraged the TRIO directors to fill out the online survey. The link to the survey was included in the e-mail. The first page of the survey was a consent form, and only consenting respondents could proceed to the survey questions.

The Pell Institute staff sent two follow-up e-mails to encourage the directors to fill out the survey. A total of 80 respondents answered the survey by August 28, 2015, the due date of the survey. Given the short time frame of the survey, and the time frame of August when many directors are not working and the limited follow up conducted, the response rate was 5 percent. Given this response rate, these figures discussed below should be taken as “exploratory results.”

Respondent Characteristics. Of the 80 respondents, 40 (50 percent) were Student Support Services (SSS) directors. Among respondents, SSS programs had higher representation than the actual proportion, as in FY 2014, 37 percent of all TRIO programs were SSS programs. The high representation from SSS program directors in the respondent group may derive from the fact that the survey was conducted during the summer when SSS grant application results were announced and SSS directors might have been working, while directors of other programs might have been out of the office in August. In addition, the Competitive Preference Priority (CPP) in the 2015 SSS competition that required the use of studies meeting the What Works Clearinghouse’s (WWC) moderate level of evidence of effectiveness standards almost certainly impacted the responses of the SSS directors compared to other respondents. SSS program directors’ responses, particularly the use of the WWC, might have been over represented. Given this potential bias of the respondent group, in our analysis, we examined whether SSS program

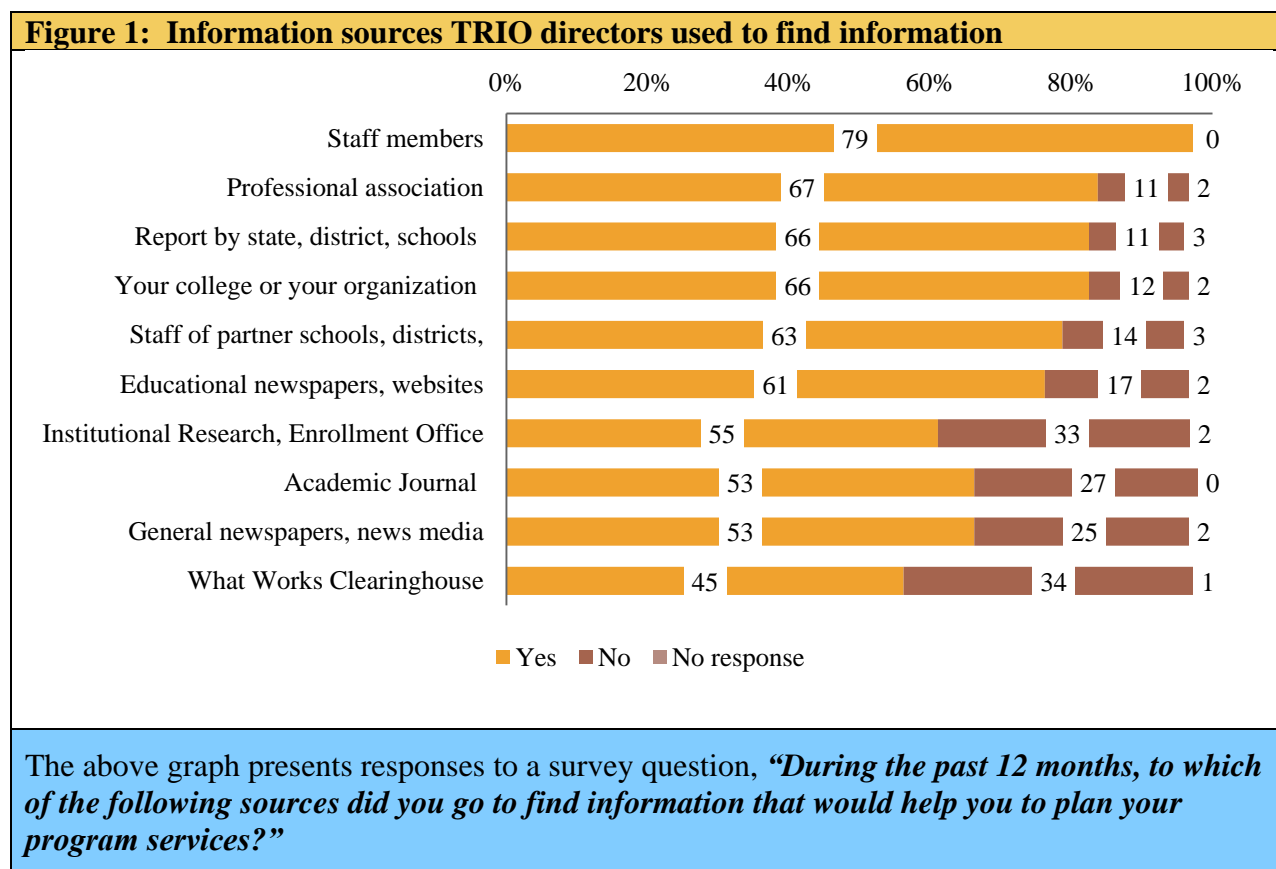
¹ Taken together, there are about 2779 TRIO programs (Upward Bound, Upward Bound Math Science, Veterans Upward Bound, Student Support Services, Talent Search, Educational Opportunity Centers, McNair). As many institutions have more than one of the programs, the 1427 COE memberships represents more than half of the TRIO institutions.

directors' responses differed from other program directors. We report the differences in the findings section.

Exploratory Survey Findings

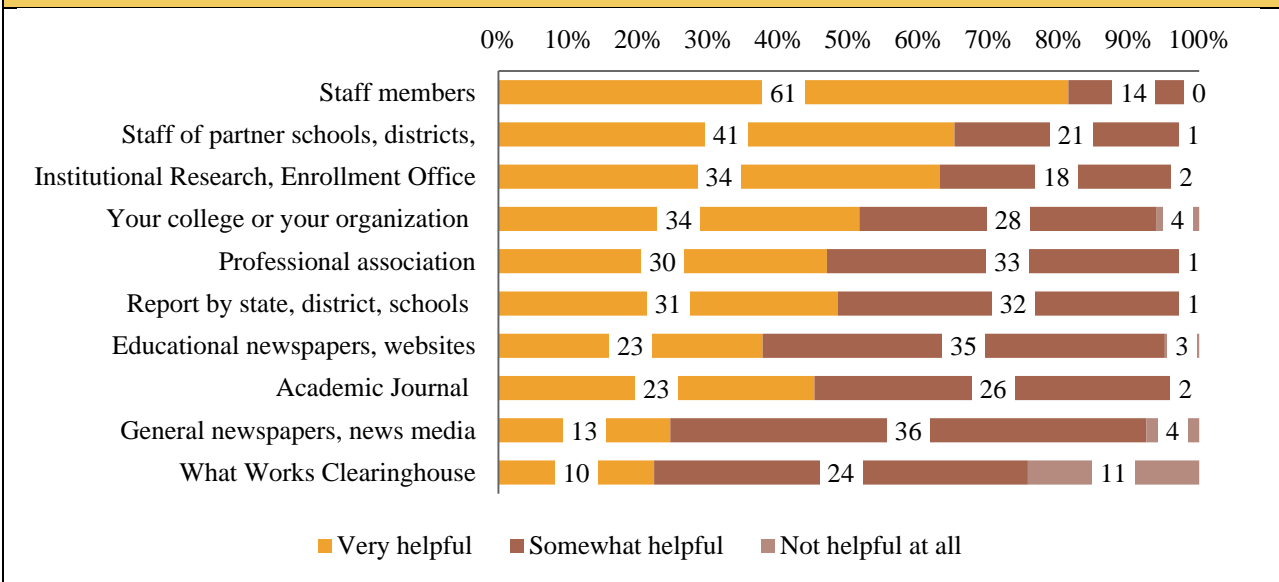
Below, we present findings on the sources of information, ratings of helpfulness, the extent of research use, and the challenges of using research and evaluations in their own programs.

Information Sources and Usefulness of These Data Sources. The survey responses suggest that TRIO directors go to local sources such as other staff members, professional association publications, reports by state, district schools, their own college, as well as staff members of partner schools and districts to seek information that will help them to plan their services. These local sources were reported more frequently than more remote, less personally known sources such as academic journals (Figure 1).



When it comes to helpfulness of information sources, TRIO directors also see staff members, staff of partner schools and districts and, their own institutional research offices as more helpful than academic journals, general newspapers and the What Works Clearinghouse (WWC) (Figure 2).

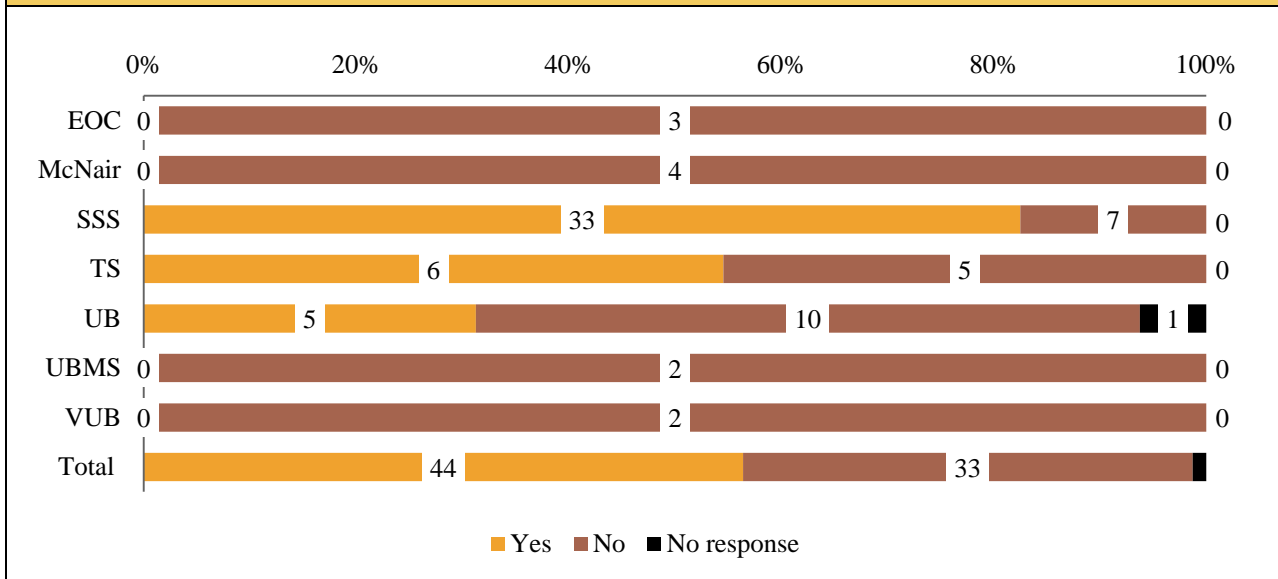
Figure 2: Number of respondents and percentage about the degree of helpfulness of information from each source.



The above graph presents responses to a question to respondents who reported going to each source, *“If yes (to go to find information from a source), how is the information helpful to plan your services?”*

The 2015 Student Support Services (SSS) competition requirements and the experience of grant writing seemed to have had an influence on the SSS directors’ likelihood of reporting that they sought information from the What Works Clearinghouse (WWC). Figure 3 presents the breakdown of response to a question that asked if they looked into WWC by program. Over 80 percent of SSS directors reported they looked into the WWC, while the rate was much lower among other programs.

Figure 3: Number and percentage of respondents who reported that they went to the What Works Clearinghouse (WWC) to find information by program types.

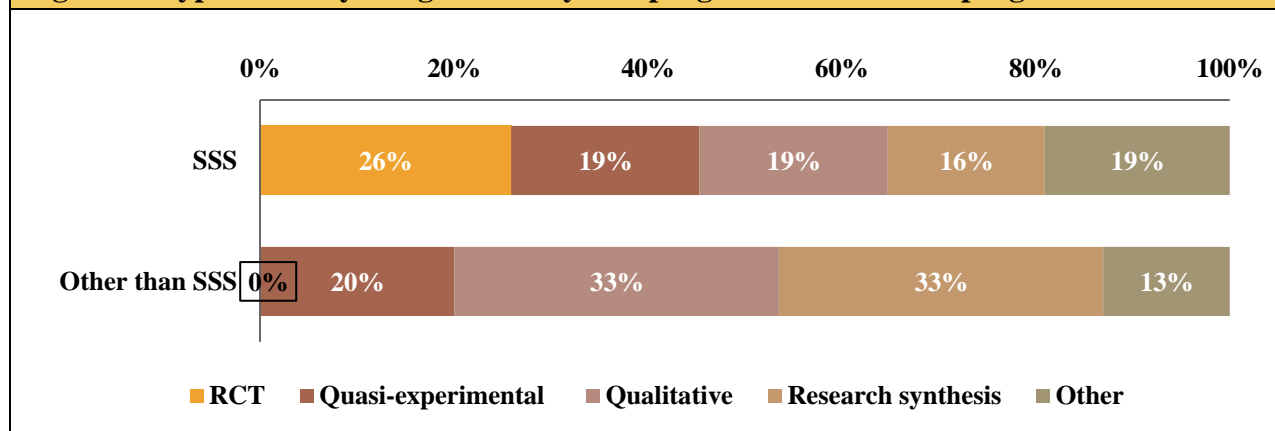


Use of Research and Evaluation. Asked whether they had used research or evaluation in the past twelve months to inform their practice, 88 percent of the TRIO directors responded yes. The most common topics of the study reported were:

- program activities and interventions (69 percent);
- study of their own TRIO program (46 percent);
- other TRIO program (44 percent), and
- college access programs that are not TRIO programs (43percent).

When we asked the research methods used for the studies that the TRIO directors remembered as most useful, only SSS program directors cited Randomized Controlled Trials (RCTs). This may derive from that the competitive preference priorities of the 2015 SSS grant competition required applicants to propose effective services and approaches that are supported by RCTs or rigorous quasi-experimental studies. Figure 4 below presents the types of study designs cited by SSS program and non-SSS programs.

Figure 4: Types of study designs cited by SSS program and non-SSS programs



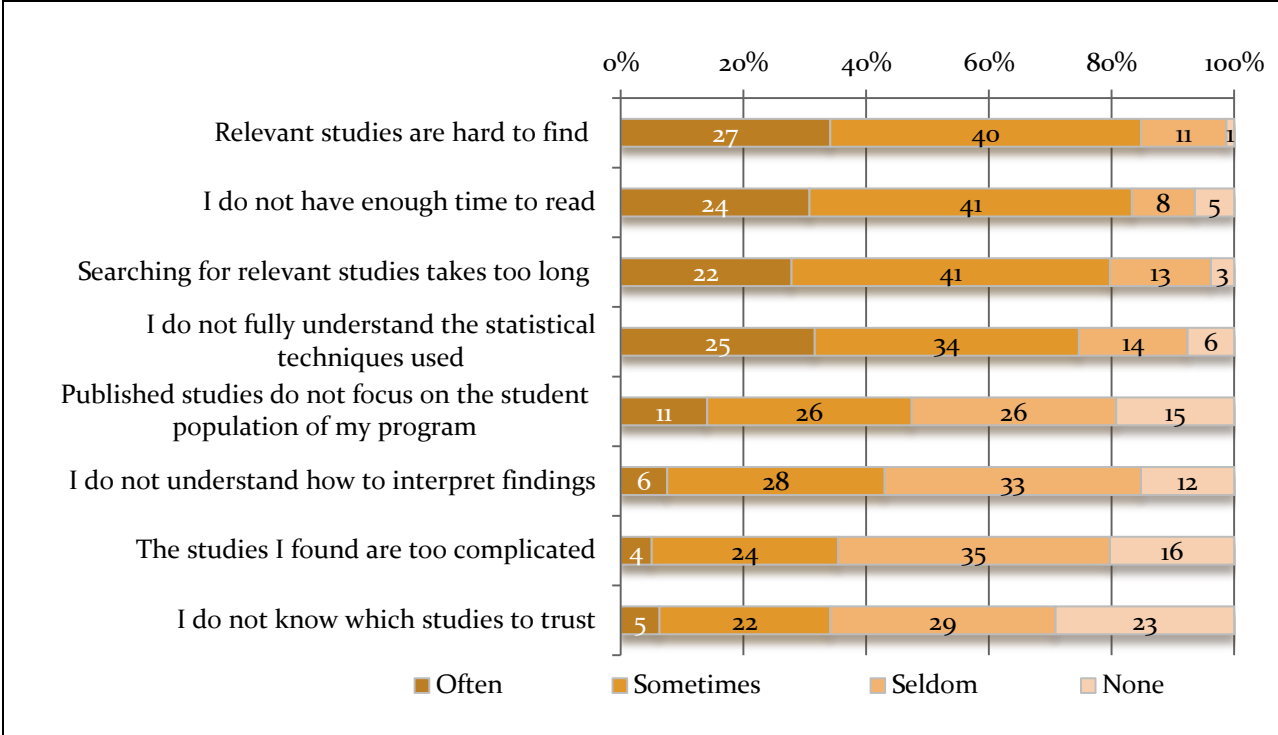
The graph above shows the type of study design used for a study that looked at specific interventions reported by survey respondents. As cited in the text, 69 percent of respondents reported they used a study that looked at specific interventions. The graph above presents responses by the 69 percent of all respondents about study design of the study they used.

**Note: other includes “do not remember” “not sure” and “other”*

Using a study for preparing a grant proposal was more frequently mentioned by SSS directors than any other program directors. SSS directors mentioned using a study for grant preparation 22 times in the open-ended question on how they used studies, while other programs (Talent Search) directors mentioned using a study for grant-writing only three times.

Challenges of Using Research and Evaluation. The survey asked TRIO directors if they came across challenges for using research that are often mentioned in the literature. For TRIO directors, “finding relevant studies” are the most common challenge. Compared to finding relevant studies, factors such as finding that the studies were too complicated, or not understanding how to interpret the findings were less commonly reported challenges for the TRIO directors. Figure 5 below presents their responses.

Figure 5: Number and percentage of respondents reporting each challenge in using research and evaluation

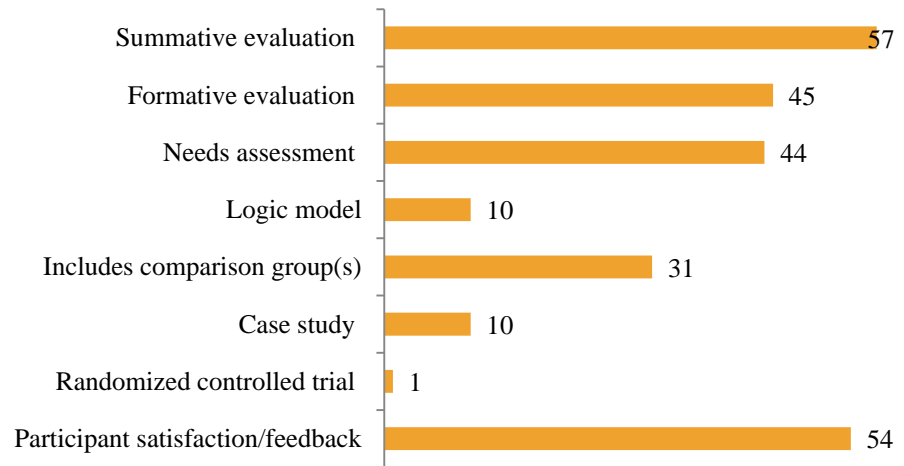


The above graph presents response to a following survey question. *“Below are some of the challenges people may have in using literature, research or evaluation in making program decisions. Please indicate how often you encountered these challenges when you tried to use literature, research, or evaluation in making decisions about your program.”*

Evaluation of Own Program. In TRIO programs, internal staff often take responsibility to evaluate their own programs. In the survey, of 80 respondents, 65 (81 percent) reported their program is evaluated, and 92 percent of program directors reporting evaluations reported that the director or program staff conducts evaluations. There were 13 directors reporting that they have an external evaluator, but all of them reported that either the director or staff also conducts evaluations.

Figure 6 below presents types of evaluations and evaluation approaches used by the TRIO programs. The most common evaluation is summative evaluation, followed by formative evaluation and needs assessment. Logic models were less utilized, as only 10 programs reported they either create or revise a logic model for their program.

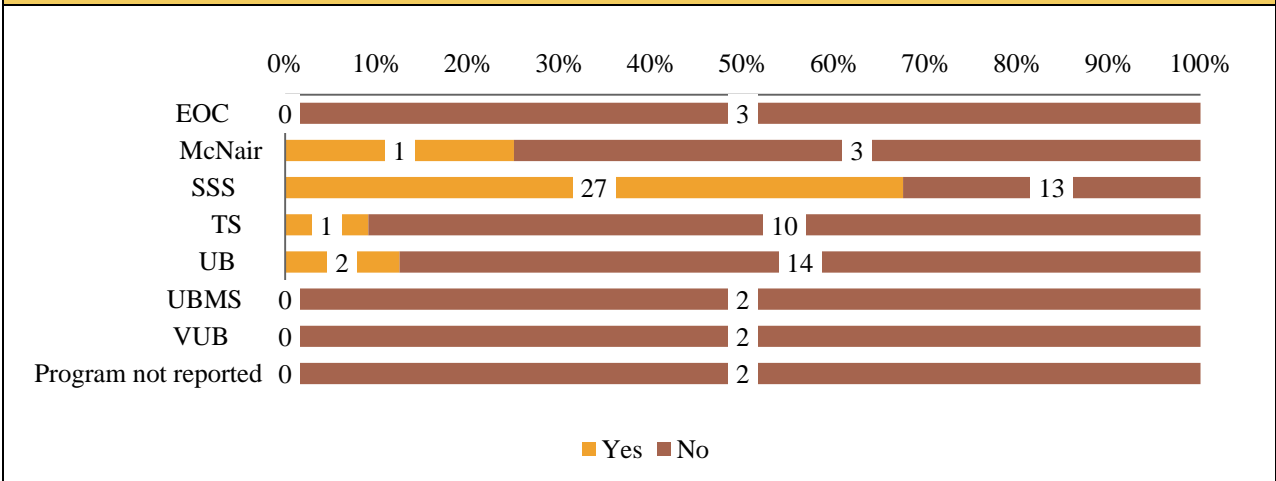
Figure 6: Number of respondents who reported using evaluation and evaluation approaches



The above graph presents responses to the survey question- *“During this grant cycle, do you or someone else conduct evaluation of your program? If yes, what types of evaluation or evaluation approaches does your program use?”* Respondents are to select all applicable evaluation methods used to evaluate their programs.

Over one-third of TRIO programs reported their evaluation includes a comparison group (see Figure 7). The majority of these programs are SSS programs. Programs that focus on college students, rather than pre-college, are more likely to include comparison groups.

Figure 7: Number and percentage of respondents who reported if evaluation of their own program included a comparison group, by program type



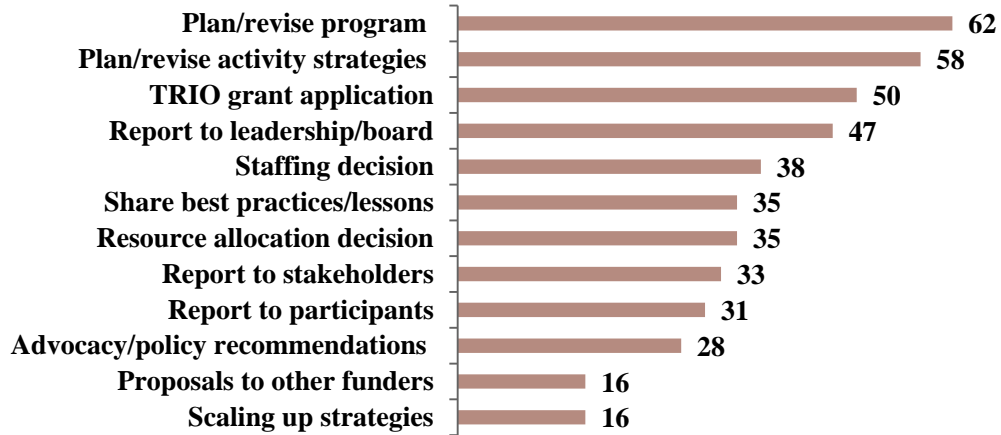
The above graph presents responses to the survey question: *“During this grant cycle, do you or someone else conduct evaluation of your program? If yes, what types of evaluation or evaluation approaches does your program use?”* The above graph is a breakdown of response to “Includes comparison groups” by program types.

The most common data the programs use for evaluation were from:

- Annual performance reports (94 percent of programs that conduct evaluation reported using them) and
- Participant surveys (77 percent).

Use of Data and Evaluation. Overall, TRIO programs report high use of data and evaluation. About two-thirds (67 percent) of programs reported they hold a data review meeting at least once a month, and all programs that reported conducting evaluations of their own program reported they used the evaluation. The most common use of the evaluation is program or strategy planning and for the grant applications. About half of the programs also reported using evaluation to communicate to their stakeholders and participants. One-quarter (25 percent) of programs reported using evaluations for proposals to other funders.

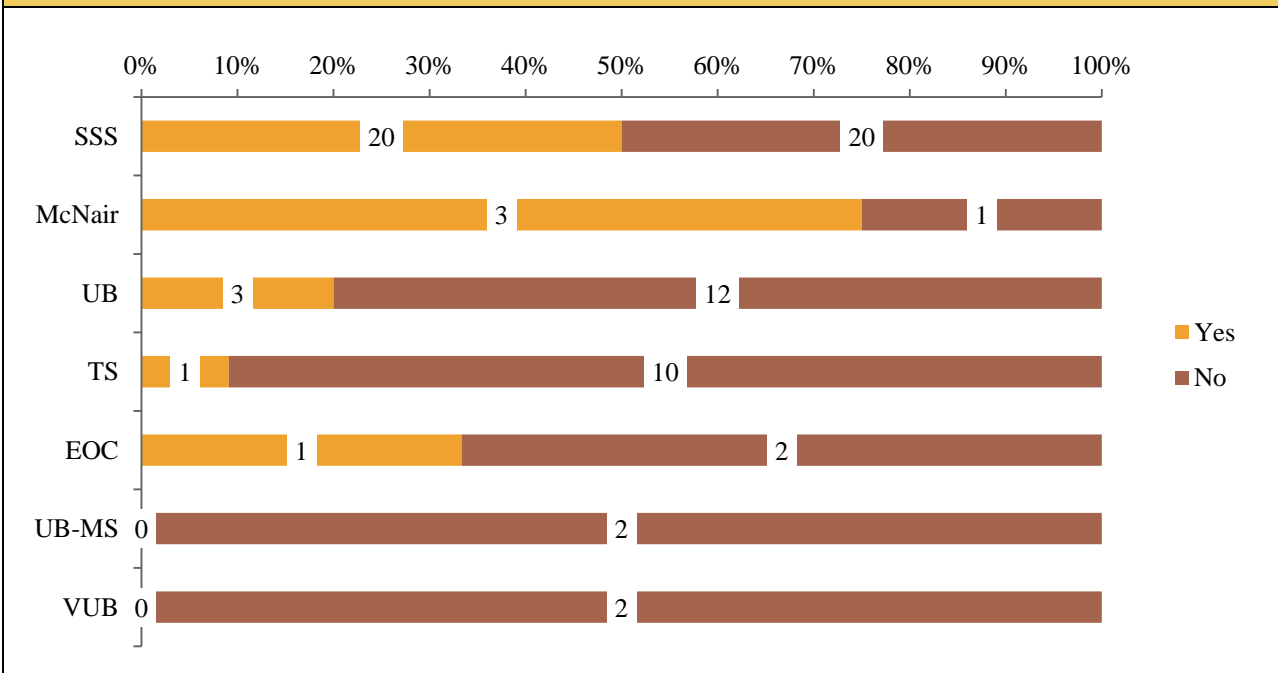
Figure 8: Number of respondents using evaluation for each of the purposes



The above graph presents response to a survey question, *“How do you use findings of the evaluation that evaluated your program? Please check all that apply.”*

Collaboration with Other Organizations. Since TRIO programs are not required to allocate a specific budget for program evaluation, utilizing existing resources or partnering with other organizations or units seem to be one of the ways to conduct evaluation. Thus, we asked if their program collaborates with other units or organizations to study or evaluate their own programs. Just over one-third (38 percent) of programs reported they collaborated with other units or organizations. SSS and McNair programs are more likely to report having collaborators or partners.

Figure 9: Number and percentage of respondents to the question of whether their program collaborates with other organizations or institutional units, by program type.



The above graph presents responses to the question ***“Does your program collaborate with other organizations or institutional units to conduct research or evaluation that informs your program’s work?”*** by program types. The number in each bar is the number of respondents who responded yes or no.

The most common collaborators are institutional research offices. Examples of study projects are as follows:

- Working with the Institutional Research office to compare SSS students, SSS-eligible students and non-SSS-eligible students (reported by SSS program)
- With the Institutional Research Office and with university professors, studying “what are viable new initiatives to expedite students from remediation?”
- With the assessment office, conducting a study using propensity score analysis to compare matched sample of participants and eligible non participants’ retention differences. (SSS program)
- With the Institutional Research Office, studying effective interventions and use of resources (Upward Bound Program)

Evaluation Questions. Respondents were asked an open-ended question regarding what they would most like to know if they had unlimited resources for evaluating or studying their program. TRIO directors reported a variety of study questions, with most centering on how best to serve students generally and also how to serve particular students. These questions ranged from understanding the best practices and student expectations to identifying effective services

for particular types of students, better management of multiple programs, the true impact of the program, and the long-term impact of the program on students and institutions. Below are some examples of the study questions listed by the TRIO directors.

- **Questions about needs, expectations, and standards.**
 - “What are students’ expectations?” “What should staff know to be effective? What professional development is needed?”(SSS)
 - “How to evaluate my program against state and national norms for retention purposes” (SSS)
 - “What encourages low-income, first-gen, and underrepresented students to pursue graduate school and persist to the PhD?” (McNair)

- **Questions to identify effective services, strategies, and programs.**
 - “What educational methods work best with middle-aged veterans preparing to attend college?” (VUB)
 - “What are evidence-based best practices for student success programs working with this population (First-generation, low-income, students with disabilities)? What are other effective services that can be used to engage, retain, graduate, and/or transfer this population?” (SSS program)
 - “To isolate variables associated with SSS intervention and correlate them with program participant academic performance and retention” (SSS)
 - “What are research-proven methods for early intervention for our demographic of students whom are currently not making adequate progress in school or state mandated testing? What are research proven methods to increase college retention rates for our demographic of students?” (Upward Bound Math and Science)
 - “Effective and efficient academic support approaches for college readiness” (EOC)
 - “What support or services are relevant for students? (e.g. group advising or individual advising? Students with trauma, older students, students at risk)” (Talent Search, SSS)
 - “What is our program’s ROI for retention or graduation rates at our institution?” (SSS)
 - “Cost effectiveness” (Talent Search)

- **Questions about program management**
 - “How to effectively run a program that travels daily 30-60 min to reach 5 target schools? How to effectively work with the rising costs of university housing, dining room reservations? How to structure the coordinated impact of running two or three TRIO programs” (Upward Bound)

- **Questions to identify “true” impact**

- “How to determine program impact in high school completion and student grades vs impact at the school level? Would like to be able to document the true academic benefit of intervention services for students” (Upward Bound)
- **Questions about the long-term impact of the program in the broader community.**
 - “How does the existence of the SSS program impact perceptions of socioeconomic diversity at my institution?” (SSS)
 - “What are the unanticipated outcomes for TRIO program participants, i.e., lower incarceration rates, higher employment?” (Upward Bound)

Effective Strategies. Another important purpose of this survey was to map a landscape of practitioner knowledge. To the question, “please list strategies or practices that you utilize regularly to make your program effective and successful,” 95 percent of respondents answered. The respondents provided multiple activities or strategies. Below, we present examples of responses in the following two categories: a) practices that are program activities, services, and b) practices that are associated with evaluations.

- **Strategies and practices that focus on how to implement services.**
 - “Establish partnership with community organization who serve a similar population as EOC and TRIO target population” (EOC)
 - “Offer advisement services, onsite, at high schools, GED programs, homeless shelters, and community organizations, helping participants apply for financial aid and college admissions at their respective locations. Provide college admissions and FAFSA workshop at various locations in the EOC serving communities. Follow up with participants either at EOC main office or out in the community” (EOC)
 - “Take students to research conferences to either see other students presenting research or to present their own research. Work with students on writing for publication, practicing and studying for the GRE, preparing for interviews, etiquette and other workshops” (McNair program)
 - “Ongoing personal learning, staff training and development, proactive review of formative assessment and data points throughout the semester and year, review of summative assessment and evaluation to shape program changes for the upcoming year” (SSS)
 - “Learning communities involving students in high-impact practices integrating academic support into classes requiring participation in activities and using future scholarship award as leverage” (SSS)
 - “Proactive intervention models for students on or at risk of academic probation or students returning from academic probation. Providing a foundation of community atmosphere so our students feel they have a safe place to come and talk to staff about a wide range of concerns. Utilizing proactive interventions for students who are on the early alert and on the financial aid purge list have been fruitful.” (SSS)
 - “Consistent contact with participants during target school visits. Inclusion of parents in programs. Summer programming that is focused and comprehensive. Providing

- students with an array of academic and social development activities.” (Talent Search)
- “Research based intervention for low-income, first generation students based on the work of Suzanne Bouffard and Eric Jensen among others. Incorporate those strategies into summer program and staff training” (Upward Bound)
 - “Mandatory turning for students who have a C or below in each high school course... who have not passed their state mandated testing. During our summer program, we prescreen and place students who have not been successful on their state testing into rigorous remediation and then work with the schools to provide a retesting period after their summer remediation. We are also working on becoming a test center to remediate and retest all of our students from the seven different pilot schools that we serve” (Upward Bound Math and Science Program)
 - “We consult colleagues in programs who serve the same kind of population we do. We base our work on our experience and try always to have at least one highly experienced staff employed. We listen to our participants’ expressed needs” (Veterans Upward Bound)
- **Use of data, evaluation, research, and feedback loop.**
 - “1. Review of program enrollment and service utilization, 2. Regularly assess outcomes data. 3. Work closely with our campus IR department to analyze trends and maintain compliance with ED outcomes, 4. Inter-departmental collaboration, especially with athletics, student affairs, career and technical programs, financial aid and admissions” (SSS)
 - “I hire tribal members when possible. I have meetings in the tribal community versus the school system. I always seek the tribal councils’ blessings for my initiatives or activities” (Talent Search)
 - “Constant evaluation and re-assessment. Create opportunities where our students are exposed to different learning strategies. Create opportunities to talk with students to understand their needs. Trust is important in working with people. When our students know that we have their best interest at heart, they will begin to open up and possibly see that their lives can change. Reinforcement is the key” (Upward Bound)
 - “We conduct semi-annual evaluations with our school partners, we solicit feedback from our students after every event, our dialogue with families informs our communication strategies” (Upward Bound)
 - “I complete an annual program review that is instituted by the college. It requires that I look at my program’s data and outcomes through a different lens. I look more at the qualitative instead of just the quantitative data” (Upward Bound Math and Science)

Discussion

The purpose of the Exploratory Landscape survey was to gather information about the use of research and evaluation in TRIO programs and their evaluation practice. The survey also aimed to collect effective practices. The descriptive information from the survey was to promote future discussions about how to better promote research and evaluation use among TRIO programs and

how to promote useful evaluations. In this section, drawing upon other studies and the findings from this survey, I present potential future discussion points.

Are the Survey Findings Reflective of TRIO Programs? Responses to the Exploratory Landscape survey project an image of TRIO programs as highly engaged with evaluation because programs regularly review data, program directors and staff members evaluate their programs, and they use findings. When our survey responses are compared with the findings from a national survey on nonprofit organizations, TRIO programs are close to the national average in the frequency of conducting evaluations. In the national study in 2012, 78 percent of nonprofit organizations that have annual budgets of \$500,000 or less, which is comparable to most of TRIO programs, conduct evaluations. In our survey, TRIO programs (81 percent) reported conducting an evaluation. However, it is very important to note that this response may not be reflective of all TRIO programs. We expect that those TRIO programs most interested in evaluation were also those that completed our survey. Furthermore, our survey sample is COE membership, which may include respondents whose institutions have a long history of TRIO programs or TRIO directors who are more engaged with college access and success missions. As we discussed, there may be a potential bias in our respondents, and there is a possibility that TRIO programs in our sample are more engaged in evaluation than TRIO programs in general. There is a need to review whether the findings in this survey reflect TRIO programs in general. COE will be able to disseminate survey findings and to facilitate discussions.

How Did the SSS Proposal Requirement of Proposing Services or Practices That Met the WWC Change the Way TRIO Programs Use Research and Evaluation for their Project Planning? The survey responses indicate that the most recent SSS program application and competition requirements might have led SSS directors to seek information from WWC and to review studies that meet WWC's evidence standards. This presents an interesting opportunity for TRIO community to better understand how this new requirement changed the way TRIO programs use research and evaluation for designing its program and services. The current survey does not provide this information. The open-ended responses made us to think that SSS programs used studies for grant writing. Since the use of RCT and quasi-experimental studies require implementing sites to prepare the best context to make the interventions work, it is important for the TRIO community to have a better understanding of how to make potentially effective interventions actually work. From the perspective of the field of study of evaluation use, it is worth investigating how this type of "imposed use" of evaluation (Weiss, Murphy-Graham & Birkeland, 2005, p. 12) influences how TRIO programs use research and evaluation in the long term. Does the exposure to WWC facilitate enlightenment or instrumental use?

How Do TRIO Programs Design Evaluation? The survey also identified interesting aspects of evaluation practice among TRIO programs.

The survey found that despite the fact that 81 percent of respondents reported conducting evaluations, only 15 percent reported using a logic model, which seems to be lower than the national survey results. A survey of non-profit organizations found 41 percent of organizations created and revised a logic model within the past 12 months, and 60 percent of organizations

have logic models (Morariu, Pankaj & Emery, 2012).² This relatively low usage of logic models may stem from the fact that the evaluation is conducted by internal staff, as one of the reasons of drawing a logic model is to support evaluators understanding of the project they are evaluating. Another reason may be that the logic model is not required in grant proposals. There is a need to better understand how TRIO programs identify evaluation questions, design, and implement evaluation.

What Makes College Programs (SSS and McNair) More Likely to Collaborate with Other Units to Conduct Study of their Programs than Others? The survey also found that SSS programs and McNair programs were more likely to report collaborating with other units to support studies of their own programs. Types of institution where programs are hosted, such as 2-year or 4-year colleges, do not seem to be the main factor. In this survey, of 41 programs that reported collaborating with other units, 21 were 4-year and the rest were either 2-year or other organizations. The commonality of McNair and SSS programs are they are both college programs, but we do not know why they are more likely to collaborate with other units than other programs. A further study to find out why and how these programs could collaborate with other units will be helpful for the TRIO community. The first step is conducting interviews with the programs.

What is the Best Way to Present Effective Strategies Reported by TRIO Programs so that the Document will be Useful for TRIO Programs, but also be Able to Present the Landscape of Knowledge about Effective Strategies? This exploratory survey collected information about many effective strategies and practices. The volume of responses provided by the respondents suggests that each program has developed its own unique set of strategies and practices. The programs reported multiple ways of knowing the effective strategies--for example, receiving feedback from students, conducting evaluations, and monitoring program performance. The next step for the ASHE-Pell Collaboration is mapping these diverse practices that are embedded in the context in a way that can be communicated to other programs.

Conclusion

This exploratory landscape survey is a first attempt to describe the way TRIO programs use research and evaluation for programming, their evaluating practices and effective strategies among TRIO programs. While the survey response rate was low, this survey is the first of its kind to systematically collect information from TRIO directors on how they use research and evaluation for programming, and the findings have raised several areas for further studies. As Competitive Preference Priorities (CPPs) have become a part of grant requirements, the Pell Institute continues to collect information on how TRIO programs respond to CPP requirements and how programs are using studies to design interventions.

² This survey, The State of Evaluation, by Innovation Network, was conducted in 2012 on 546 representatives of 501c3 nonprofit organizations. The final report is available online: <http://stateofevaluation.org>

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CONCLUSION

BY HEATHER ROWAN-KENYON, MIKA YAMASHITA, AND MARGARET CAHALAN

The essays included in *Reflections on Connecting Research and Practice in College Access and Success Programs* are diverse but have in common that they highlight the value of researcher and practitioner collaboration in working together to promote better outcomes for students. The essays also address the important but complex practical question of “how researchers and college access practitioners can best work together to inform one another and promote better outcomes for students.”

This collection presents examples of multiple forms of “research” conducted in TRIO and GEAR UP and other college access and success programs. While the current policy focus on federal programs is associated with strong pressure to use evidence-based interventions that are supported by quantitative random assignment, “rigorous” research (as reported by Cahalan and Yamashita), the examples of research included in this work are not limited to this type of research. The essays report studies that use qualitative, mixed-methods, and participatory action research. Furthermore, while some “researchers” conducted more theoretical research, others conducted specific program evaluations (Bell, et. al, Kimball, et al). TRIO programs have a long history of requiring extensive performance measurement at the individual student level, often involving years of tracking all the students served by the program. Essays written by college access professionals (Mullen and Felix) demonstrate how practitioners can use available information to produce internal knowledge that supports program improvement in the absence of external researchers. Some essays (Beasley and Cahalan) present lessons learned from the challenges of collaboration between researchers and practitioners such as in some of the national evaluations of TRIO programs.

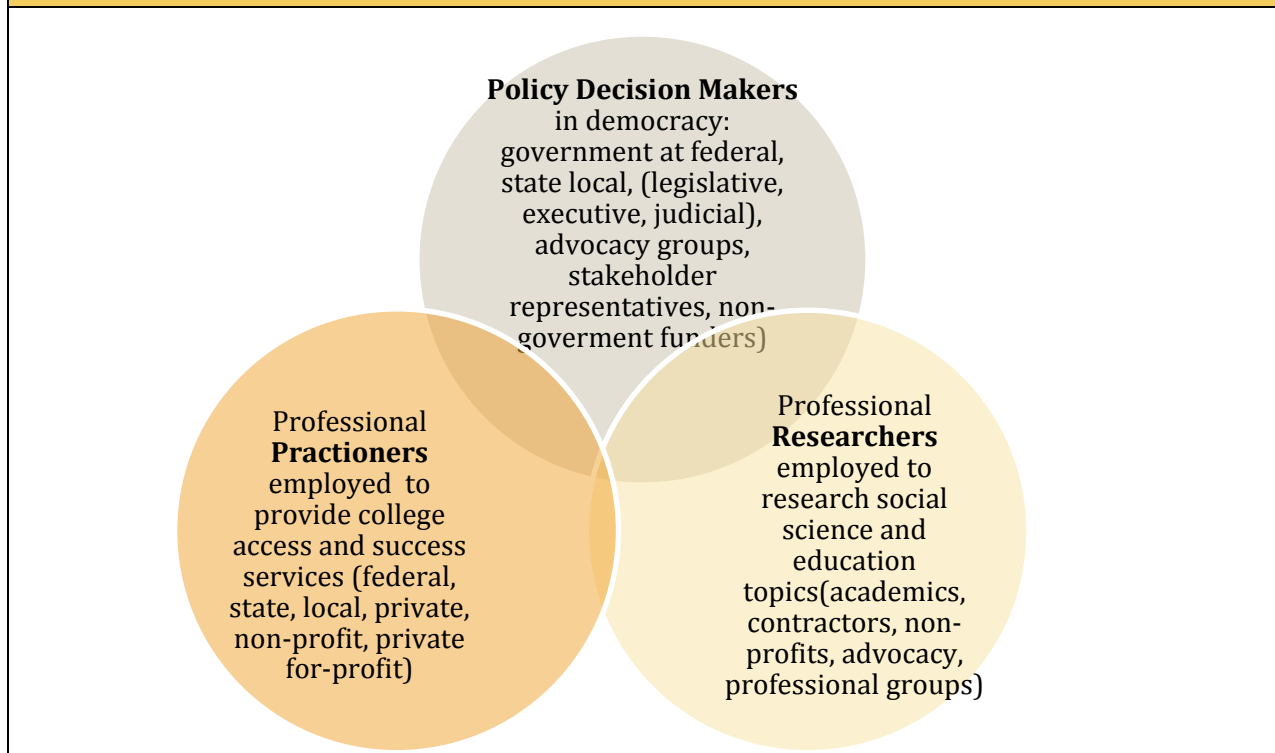
Although researchers and practitioners are frequently viewed as two distinct groups, the essays show that this distinction is becoming blurred in an era of increased technological tools for processing and analysis of data, and the increased demands for routine use of data to inform programming. This distinction also becomes artificial when we define research broadly as “activity that employs systematic, empirical methods to address a specific question” (Cahalan). Performance monitoring could also be seen as research as it collects information systematically to answer a specific question, i.e., if a program meets pre-determined performance standards.

The authors also showcase the wide variety in who is doing this work. Often we see that academic researchers have a strong ongoing connection to college access and success programs, either as a staff member or even as a participant during their own pre-college/college experience. While one might automatically default to a researcher as a professor working in academia, in actuality researchers doing this important work are part of a much larger group, including program evaluators, staff of intermediary organizations, and university administrators.

In reflecting on this work, we recognize that the dichotomous designation of “researchers” or “practitioners” is an oversimplification. For one thing, it leaves out the important group of

policy decision makers that influences the context and rules under which the college access and success programs operate, and that provides research funding and at times mandates the exact types of research to be conducted. As Figure 1 below illustrates, the identities of “practitioners” and “researchers” involve considerable actors and overlap in practice.

Figure 1: Groups of overlapping actors concerned with fostering better college access and success outcomes for students



As described by Perna’s essay, however, researchers and practitioners continue to be different just as research tasks and the day-to-day services provided by practitioners continue to be different. Researchers and practitioners work under different norms and incentives. They are expected to produce different types of knowledge. The essays written by researchers describe challenges that researchers face when they negotiate research questions with program staff (Venegas, Kimball, et al.). The researchers need to be able to design a study that can respond to a program’s interest in order to keep their support for the research, and to improve the quality of the study. At the same time, their study design needs to respond to their particular research interest. Program staff needs to be able to ask questions that are meaningful for their programs (Mullen, Yamashita). One of the important questions we need to ask, beyond researchers acquiring buy- in from program staff to conduct research, is how both researchers and practitioners can formulate research questions that are meaningful for both groups.

Below we list some recommendations that have emerged from the diverse essays that we hope will improve future collaboration between researchers and practitioners.

- 1. *Think About Adequate Research Needs During the Program Planning and Funding Process But Decouple Competitive Funding Decisions From Results of Research Evaluations of Particular Interventions.*** One of the key recommendations is that the research question should be meaningful to programs and there should be adequate resources to adequately address the research questions; however, it is important to ensure that funding for research does not reduce or supplant ongoing program services. Ethically, when college access and success services are at stake, it is important to not deny services to any student simply for the sake of a study. To ensure an honest and open study, it is also important to decouple funding for future needed program services from the outcomes of evaluations of a particular intervention. TRIO practitioners and researchers should collaborate on creating feasible, ethical, valid, and accurate research and evaluation plans, as highlighted by Laura Perna and Bell and colleagues. These collaborations can empower TRIO practitioners to have a voice in the research process and ensure that the research will meet relevant knowledge needs for TRIO practitioners. For researchers, the voice of practitioners is essential to ensure the quality and validity of the data (as discussed by Bell) and to determine whether the research plan is feasible and ethical, as detailed by Cahalan in her essay on lessons learned from the Mathematica Upward Bound Study. Yamashita added that TRIO practitioners need to share their own logics of evidence use that reflect how TRIO professionals work in practice, since randomized control trials provide little information about actual interventions for individual program improvement. More research is needed to reflect how TRIO programs actually work.
- 2. *Seek Authentic Collaborations from the Time of Conceptualization.*** One challenge that many researchers and practitioners face is that collaborations can often be one-sided. A researcher may show up on the doorstep of a program director asking to study program students in a certain way; or a program staff member may reach out to a researcher with a request to collect data in a particular way. While these transactional relationships may work, they are not true authentic collaborations built from a point of mutual understanding. As Kiyama discusses, collaboration develops through relational networks of people who share the same social justice concerns. Vergas discusses researchers need to ask meaningful questions by first listening to program staff.
- 3. *Build on Existing Relationships and Particular Contexts. Structure Frequent Communication.*** While the collaboration between researchers and TRIO practitioners is an asset, the process is rarely easy and it takes effort to build and maintain a successful partnership. As Kiyama and Kimball and colleagues shared, partnerships that develop out of previously formed relationships can be most helpful. As Beasley shared, these relationships can work to develop interventions that are “custom fit” to the particular program and/or campus context. As was highlighted in all of the essays focused on collaboration, open and frequent communications and dialogues are needed between the staff and researchers throughout the life of the partnership. Kristan Venegas and others also highlighted that the key to developing authentic collaborations is to build trust between the participants and the researchers. One way to do this is through some shared areas of responsibility such as data collection. Both the researchers and practitioners will need to be flexible, as shared by Bell and colleagues. These partnerships and shared responsibilities that may be necessary to

make data collection “less burdensome and more efficient” can also help break down silos and increase the likelihood of much higher quality and more comprehensive data collection.

4. ***Include both Traditional and Innovative Research Methods in Preparation of Both College Access Professionals and Academic Researchers.*** The essays highlighted the need to help in developing the competency of traditional and innovative research and evaluation methods in the academic training of TRIO professionals, as well as the need for researchers’ own training to include innovative research methods such as collaborative, participatory, culturally responsive, and action research. Beasley called for development of a course of study to prepare TRIO professionals to administer effective college access and success programs. He highlighted the new certificate program, *College Access and Success Programs Graduate Certificate*, a joint initiative between Colorado State University and the Council for Opportunity in Education, as one example to provide current college access professionals with academic courses and meaningful qualifications directly related to their work. Researchers can also be better prepared for entering these collaborations through the inclusion of a variety of new methodologies such as collaborative, participatory and action research, which values and promotes authentic collaboration between researcher, practitioner and participant.
5. ***Developing Reflective Awareness of the Importance of Differences in Positionality in Influencing Outlook.*** For both practitioners and researchers, it is important to be self-aware and reflect on the importance of their different positions in influencing their interpretations of the data and its implications. This can be an asset in deepening and strengthening the research and practice.
6. ***Disseminate Research in an Accessible Way.*** As seen in our attempt to map the landscape of practitioner knowledge related to research and evaluation, there is a disconnect between the published research in this area and what practitioners are actually reading. Research results must be made available and accessible to TRIO practitioners and policymakers. In our landscape analysis presented by Yamashita, there are signs that that in the recent SSS funding cycle, practitioners accessed studies from the What Works Clearinghouse as required in their grant writing. However, it is not clear what practitioners took away from the research findings to design their programs. Researchers need to think about disseminating scholarship in ways that are available and accessible, beyond peer-reviewed scholarly publications, which is usually the most valuable product for these researchers, and use multiple outlets in the form of trade publications, reports, executive summaries, and other alternative formats to get the findings out there to increase the possibility of recommendations for practice actually getting implemented. Felix reports that a professional community of practice network is a promising path to inform practitioners about evidence-based practices.
7. ***Acknowledge Program Improvement and Excellence is the Goal.*** As can be seen in all of the essays, practitioners and researchers alike strive to produce programs and conduct research with the intent of improving practice to benefit students. Bell and colleagues emphasize the importance of formative evaluation as findings could contribute to improve

programs and services throughout the process. Mullin presented how leadership and effective management can facilitate using data to make mid-course improvements and to explain performance and highlight program improvement. As Cahalan highlights in her piece about evaluation errors in random assignment studies, one cannot assume that implementation of “rigorous” study will be free from errors and that these issues need to be acknowledged early. Checks and balances need to be in place in examining the data, and if mistakes are found, they need to be corrected.

8. ***Recognize the Dynamic Quality of both Practice and Research.*** As the essays illustrate, just as there is not always a clear distinction between researchers and practitioners, there is also no clear linear pathway from research to practice—or from practice to research. Rather, one might think of multiple pathways with continuous feedback loops. Practice is dynamic, whether it is informed by research or not— with a necessity for continuous adaptation and responding to new circumstances. Useful research also needs to build in a dynamic and adaptive quality. A study begun in one year may find that the program has changed substantially by the next year for reasons out of the control of the researchers.
9. ***Consider the Importance of the Federal Context and Competitive Grant Making Process, and Reconsider the Current Federal Approach to Evidence Use.*** The nature of operating as a federally funded entity is an important aspect to be considered when we discuss how to improve collaboration between researchers and TRIO practitioners. Because TRIO is a federally funded program, the role of federal government needs to be examined. As Beasley and Cahalan described, TRIO experiences a strong top-down policy pressure to use a specific type of research evidence and to participate in specific research studies that may affect individual program funding and the existence of the programs themselves. Despite this strong pressure to be evaluated, the focus of data collection at each program is on performance outcome monitoring rather than evaluation or a focus on a particular set of interventions that might be studied. Because of this structure, federal-level decisions and guidance on what constitutes evidence and how programs should use evidence has a direct consequence for each program. Government’s evaluation policy matters for TRIO programs. Practitioners put a great deal of time into their competitive proposals, conforming to government requirements, but while they may meet the requirements on paper, these responses are often not feasible in practice. The CPP requirement in all of the 2015-2017 competitions was based on the idea that “interventions” supported by “rigorous evidence” if implemented in the TRIO programs would improve the program outcomes for students. As Cahalan described in her two essays, this is a very limited view of how evidence can or should inform practice and what constitutes practice in a particular context. As shown in the landscape survey and in the essays in this volume, there are multiple ways evidence feeds into various aspects of practice. For example, Bell and colleagues’ essay reports on the use of research to improve program processes, and Kimball and colleagues’ essay reports how the program saw Action Research as helpful. Essays written by TRIO practitioners and researchers highlight the complex policy context in which TRIO programs operate and how federal government’s evidence initiatives, evaluation resource allocation, and monitoring requirement present challenges to programs concerned with conducting useful research that might meet each individual program’s information needs. *The essays presented here suggest there is a need to reconsider the current federal government’s*

approach to research use and to providing guidance to TRIO professionals in how best to use research.

- 10. Focus on Potentially Useful Questions that are Feasible to Address with the Resources and Information Available to be Collected or Compiled.** Cahalan illustrated how questions being asked by the government are often not easily answered in a valid manner and how this can lead to serious threats to validity of the study and can potentially be harmful to program stakeholders. Asking the right questions, ones that are aligned with the feasible data in the end is one of the most important collaborative actions that can occur between researchers and practitioners.

In conclusion, this collection of essays is intended to advance conversations and actions surrounding effective ways to link research and practice on the role of college access and success programs in increasing college access and attainment. We hope that the essays promote thinking and dialogue about how we can all work collaboratively to create meaningful improvements in higher education access and success.

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