

HASSLES TO TASSELS: POTENTIAL INSTITUTIONAL INHIBITORS OF STUDENT SUCCESS

by

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ABSTRACT

Much of the research and literature pertaining to college student retention, graduation, and completion focuses on student behaviors and choices. While this perspective provides a clear focus for targeted programs and intervention initiatives with specific groups or individuals (such as early alert systems, student orientation, tutoring, supplemental instruction, etc.), it overlooks the possibility that an institution's policies, practices, and procedures may also inhibit students' progress and persistence. This product dissertation offers a workbook containing a set of three tools for use in examining potential institutional structural, procedural, and cultural inhibitors to student progress.

In creating the workbook, the researcher first developed the typology of potential institutional barriers using a card sorting activity completed by 14 current practitioners in the field of student success. Participants were given a concept deck of 120 cards, each containing a statement or idea that had been generated by workshop attendees, about potential institutional inhibitors to student persistence and completion. Participants were asked to sort the statements into broad categories, or themes, and give each category or theme a label. These labels were then submitted to the researcher, who was able to search for common themes across the participants, developing the typology of potential institutional inhibitors.

Analysis revealed five major categories of potential inhibitors to student success: Assumptions, Attitudes, Policies, Procedures, and Information Gaps. The researcher used the typology generated by the analysis to inform the development of the three tools: an Inventory

instrument to identify specific examples of potential barriers; a Facilitator Guide to conducting a campus audit of potential institutional barriers; and a Focus Group protocol to help institutions understand the student perspective related to potential institutional barriers and the reasons for attrition. The three tools can be used separately or in combination by student success practitioners engaged in and concerned with increasing credential attainment.

DEDICATION

This work is dedicated to my family, whose steadfast confidence that I would achieve this milestone provided the incentive to keep going when I was tempted to linger. Thank you for your love and support, and for your patience when I was away too long. I think it's time to come home.

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CHAPTER ONE: INTRODUCTION OF THE STUDY

INTRODUCTION

Higher education faces tough questions of accountability. The conundrum of why students prematurely leave college before graduation has been studied from various psychosocial perspectives for decades, and in the last 10 years the words “retention,” “graduation,” “persistence,” and “completion” have become more widely used in the lexicon of reporters, congressional representatives, lobbyists, and even political candidates. What caused this surge in interest in calculating percentages of student success, and why is it important?

Concerns about the state of higher education and the ability of the United States to continue to educate its citizens for the modern, technology-driven workforce drove the creation of the Commission on the Future of Higher Education in 2005, led by U.S. Secretary of Education Margaret Spellings. The Commission’s product (U.S. Department of Education [USDOE], 2006), colloquially known as the “Spellings Report,” stated:

Where once the United States led the world in educational attainment, recent data from the Organization for Economic Cooperation and Development indicate that our nation is now ranked 12th among major industrialized countries in higher education attainment. . . . And these global pressures come at a time when data from the U.S. Department of Labor indicate that postsecondary education will be ever more important for workers hoping to fill the fastest-growing jobs in our new economy. (p. 14)

The report emphasized four areas—access, affordability, quality, and accountability, drawing particular attention to the numbers of students who start but do not complete college

credentials and the need for this information to be made public. The Spellings Report recommended, “Higher education institutions should make aggregate summary results of all postsecondary learning measures, e.g., . . . time to degree, graduation rates, and other measures, publicly available in a consumer friendly form” (USDOE, 2006, p. 24). Although some of the Spellings Report’s recommendations sparked controversy, including the call for an accountability database containing college and university statistics available to the public, a much sharper focus emerged in the national dialogue on the value of a college degree for both the broader knowledge economy and the individual learner.

While the national accountability database as recommended in the Spellings Report did not come to fruition, the reauthorization of the Higher Education Opportunity Act in 2008 included specific requirements that institutions must make available retention, completion/graduation, and transfer-out rates of degree-seeking, first-time, full-time, undergraduate students (Higher Education Opportunity Act, 2008). Institutions had been submitting graduation rates to the federal government since the passage of the Student Right-to-Know and Campus Security Act of 1990, and submitting retention and graduation rates to the federal government’s Integrated Postsecondary Education Data System (IPEDS) since 2003. The data were available to a student or parent or policymaker, provided they knew how to navigate the national database and what to look for, an unlikely scenario. It was not the collection of additional data, but rather the new mandate to make them publicly available and “consumer friendly” that precipitated a shift in the way the public thinks about student success in higher education.

As institutions complied with the requirement to post retention, completion, and/or graduation rates, they were more easily compared with one another, and a growing sense of alarm emerged from constituents. As Bailey, Jaggars, and Jenkins (2015) described it,

The publication of graduation rates was eye-opening. Some colleges had single-digit graduation rates. Although college personnel argued that these rates reflected the weak preparation and diverse goals of entering students, it was hard to argue that rates in the teens or twenties represented successful organizational performance. (pp. 5-6)

The disagreement referenced by Bailey et al. (2015) emerged related to the U.S. Department of Education's designation that the primary unit of measurement for retention and graduation rates was a "first-time full-time" (FTFT) student. This definition assumed that most college students were traditional, entering immediately after high school and intending to graduate from that same institution, when in fact the opposite has come to be the case: students who enroll full time immediately after high school no longer represent the majority of postsecondary college students (Choy, 2002; Moore & Shulock, 2009; Reeves, Miller, & Rouse, 2011).

These "nontraditional" students may be older, have family and employment commitments, enroll part-time, and transfer to another institution, leaving the conventional first-time full time definition inadequate for calculating retention, graduation, and other measures of success (Advisory Committee on Student Financial Assistance [ACSFA], 2012; Committee on Measures of Student Success, 2011; U.S. Department of Education, 2011). Recognizing and addressing this inadequacy through the "development and adoption of new and more appropriate measures of success" has been a major focus of recent college completion research (Shapiro et al., 2015).

Until those new measures are developed and widely adopted, much of the national conversation continues to rely on statistics such as those provided by the American College Testing Program (ACT), which has been tracking retention and graduation rates since 1983 at both two-year colleges and four-year colleges and universities, using the first time full time definition. Although the percentages have fluctuated at times, little significant progress was seen in national retention and graduation rates from 1982-2010: the average retention rate trend, first to second year, at four-year colleges or universities was 68%, with a five-years-or-less graduation rate of 60%. For two-year colleges, the retention trend was 56% and the completion rate of three years or less was 28% (ACT, 2010).

While there is validity in the disagreement over the continued use of the conventional first-time full-time definition, the fact remains that large numbers of students leave higher education without obtaining a credential, and there are many compelling reasons for constituent distress. In addition to the concern that students who do not persist are not able to meet their educational or career goals and may have incurred substantial debt, Barnett (2011) stated, "Persistence is also of concern to society at large because college-educated citizens contribute in many ways to the social good and are less likely to engage in harmful behaviors" (p. 3). Barnett also discussed Pascarella and Terenzini's (2005) findings that a college credential is consistently associated with a multitude of personal advantages, including:

significant cognitive gains, especially in verbal ability; gains in knowledge and critical thinking; greater ability to deal with complexity; increases in tolerance, aesthetic sensibility, and moral development; increases in the amount of time devoted to children and greater encouragement of their college attendance; better health; and an improved sense of psychological well-being. (p. 4)

Because these gains grow over time, merely attending college for one to two semesters without obtaining a credential is unlikely to have the desired effect. Identifying additional economic benefit, Tinto (2004) wrote, “It is likely that the impact of completing a four-year degree on the inter-generational earnings of first-generation college student families is at least a doubling of family earnings” (p. 7).

As understanding continued to grow of the importance and benefit of a higher education credential on both a personal and national scale (Carnevale, Rose, & Cheah, 2011), enrollment in postsecondary institutions dramatically increased. According to the U.S. Department of Education’s National Center for Education Statistics (NCES, 2015a), between 2002 and 2012 enrollment in degree-granting institutions increased 24%, from 16.6 million to 20.6 million students, including increased enrollment of low-income, first-generation, and minority students. The intense criticism now levied at higher education is that, once enrolled, there was little focus on ensuring these low-income, first-generation, and minority students obtained a certificate or degree.

Armed with imperfect yet readily available statistics, such as only 28% of those who enroll in community colleges earn a credential in three years, and only 60% of those who enroll in a four-year institution earn a credential in five years (ACT, 2010), the growing chorus of criticism steadily expanded into what has come to be called the “completion agenda.” After decades of focus on access—just getting students in the door—the discussion has now shifted to student success and completion. As Kelly and Schneider (2012) described it,

Instead of simply opening the gates to more and more students and simply hoping for the best, the new “completion agenda” calls on institutions and policymakers to create policies and practices that improve the rate at which students finish their degrees. (p. 1)

Spurred by President Obama's 2010 State of the Union Address in which he set a goal for the country to have the highest proportion of college graduates in the world by the year 2020 (Obama, 2010), other think tanks and non-profit groups created numerous programs and initiatives in an attempt to increase student success. The Lumina Foundation's Goal 2025 aims to increase the proportion of Americans with high-quality degrees, certificates and other credentials to 60% by 2025, and the Gates Foundation intends to double the numbers of low-income students who earn a college credential. The completion agenda has also grown to include companies offering various programs, software, and consulting services to institutions. Despite these efforts, aggregate data seem to indicate the "progress toward equity and student success is quite simply stagnated" (Institute for Higher Education Policy [IHEP], 2016, p. 1.1) as current national measures of retention and completion continue to show little to no significant improvement.

STATEMENT OF THE PROBLEM

Each year a growing number of students who were motivated enough to research colleges, take placement tests, enroll and pay tuition, buy textbooks, and attend their first classes, make the decision to drop out. And while some might argue that "not everyone is college material," it is becoming clearer that our higher education system is still not producing educated citizens with the knowledge and skills needed in the modern workforce (Bill & Melinda Gates Foundation, 2016; European Commission, 2015; Organisation for Economic Cooperation and Development [OECD], 2015). Deepening our understanding of why and when

students choose to drop out, or conversely, why students choose to persist, remains an important and pressing need facing higher education.

Despite decades of research, an answer to the “departure puzzle” (Braxton, Sullivan, & Johnson, 1997) remains elusive. The principal studies conducted that have led to the development of influential models of college student retention and completion are generally agreed to be those of Spady (1970, 1971), Tinto (1975, 1993, 2012), Pascarella (1980), Astin (1984), Bean and Metzner (1985), Pascarella and Terenzini (1991), and Braxton (2002). As a whole, this body of work provides a solid foundation for understanding potential causes of student attrition and factors that influence the decision to leave college. These authors presented a student-centered approach, spurring further exploration, development, and recommendation of a wide variety of intervention programs or practices with specific target populations.

This student-centered approach might best be summarized in the National Survey of Student Engagement’s (NSSE, 2007) and Kuh’s (2008) work on the development of “high-impact” practices: teaching and learning activities that have been shown to increase rates of retention and engagement. Kuh defined traits of high-impact practices as demanding considerable time and effort, facilitating learning outside of the classroom, requiring meaningful interactions with faculty and students, encouraging collaboration with diverse others, and providing frequent and substantive feedback (Kuh, 2008). Such practices include learning communities, first-year seminars, service learning, internships, and capstone projects. The Center for Community College Student Engagement (CCCSE) identified additional promising practices such as mandatory orientation, accelerated developmental education, early alert

systems, and supplemental instruction (CCCSE, 2012). The National Survey of Student Engagement (NSSE, 2015) has continued to develop this line of research through the identification of an additional 10 engagement indicators.

The implementation of high-impact, engaging, and promising practices has quickly spread throughout higher education, and undoubtedly has provided benefit to targeted groups and individual students (CCCSE, 2012, 2013; NSSE, 2013). But despite these one-to-one or targeted group interventions, there remains a lack of significant progress in increasing national aggregate rates of retention or credential attainment (ACT, 2015; IHEP, 2016). Could there be additional factors beyond those stemming from the student that contribute to this issue?

SIGNIFICANCE OF THE STUDY

A literature search related to persistence, retention, completion, and graduation reveals thousands of articles examining student variables and intervention programs, such as the degree to which mentoring, first-year experience courses, social integration, academic preparedness, financial resources, parental involvement, and/or cultural capital, can positively or negatively impact an institution's overall (or a subset population's) retention or completion rate. While such work is tremendously important, this focus on student-centered intervention strategies has not produced a clear way forward or an answer to the question of "what next?" in improving student success outcomes. If student success is the desired outcome, the current state of the research can be illustrated as in Figure 1 below, in which two main sets of variables have been the focus of inquiry.

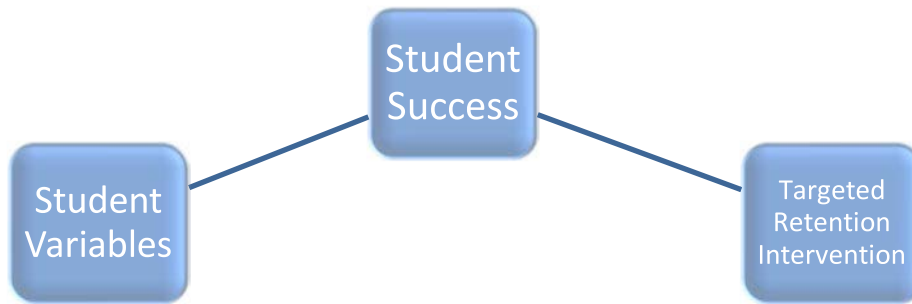


Figure 1. Primary Variables Impacting Student Success

Given that “the evidence is abundantly clear that a college degree is essential to economic success and social mobility in the 21st century” (IHEP, 2016, p. 1), the fact that so many students fail to complete a college degree seems to indicate a gap exists between the majority of the research on persistence and completion, and its application and results on a campus. This study seeks to fill that gap by building on the work of Summers (2003), Rosenbaum, Deil-Amen, and Person (2006), Cuseo and Farnum (2011), and Scott-Clayton (2011). This smaller group of scholars has begun to look at the association between institutional variables and student success, rather than focusing solely or primarily on student variables or the impact of targeted intervention programs. Furthering that line of inquiry, the researcher asks if a third and equally important set of variables might be found in the ways in which an institution’s policies, practices, and procedures may impact student progress and persistence, resulting in the illustrated concept framework below.

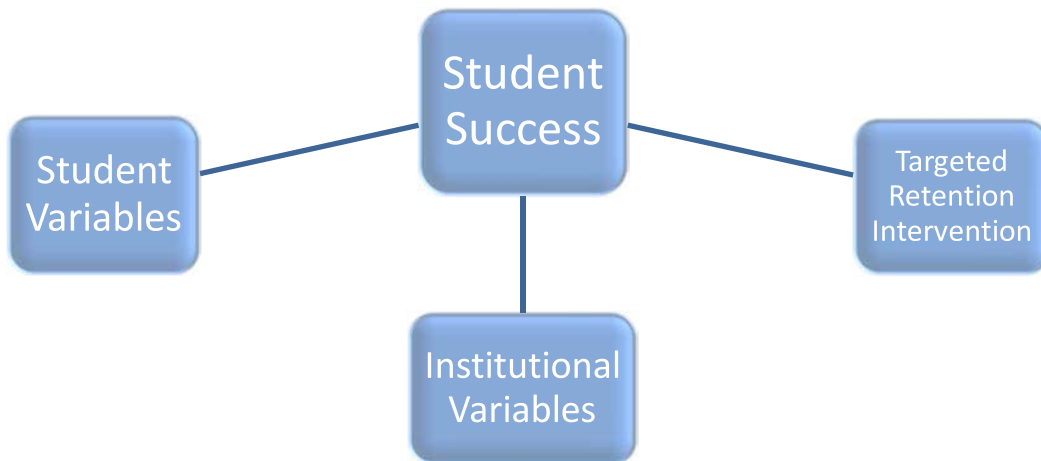


Figure 2. Additional Variables Impacting Student Success

PURPOSE OF THE STUDY

The goals of this project were to (1) develop a typology of potential institutional barriers to student persistence and completion, and (2) develop a set of tools to assist institutions with an audit of their campus culture, policies, and practices to identify those potential barriers. The resulting workbook for student success practitioners offers an applicable tool to those engaged in and concerned with increasing credential attainment.

RESEARCH CONTEXT

The inspiration and interest to pursue this project came from ideas and information collected during activities carried out in the researcher's professional capacity. Conference and workshop attendees listened to a presentation given by the researcher in which they were asked to consider if institutions play a role in low retention and graduation rates, and were provided with examples of possible institutional barriers. Attendees then participated in discussions, generated ideas, and wrote responses to the question: *Have you experienced or*

heard of any potential inhibitors to student persistence and completion? The ideas generated by attendees during these workshops and presentations motivated the researcher to further explore how institutional culture, policies, and procedures can create barriers to student persistence and completion.

The primary method of qualitative research was the use of a card-sorting activity completed by current practitioners in the field of student success. Participants were given 120 cards, each containing a statement about potential institutional inhibitors to student persistence and completion. Participants were then asked to sort the statements into broad categories, or themes, and give each category or theme a label. The cards and their resulting labels were then submitted to the researcher, who was able to search for common themes across the participants, developing the typology of potential institutional inhibitors.

DEFINITION OF TERMS

Although numerous characteristics of student persistence and completion have been a matter of great importance to educators and researchers for several decades, the vocabulary used to describe this phenomenon has changed over time and includes terms such as *college dropouts* (Spady, 1970; Tinto, 1975), *student attrition* (Panos & Astin, 1967; Sexton, 1965; Tinto, 1993), *student retention* (Berger, 2002; Tinto, 1990), and *student persistence* (Berger, 2002; Berger & Milem, 1999).

A student's failure to return to college the following semester or year is often referred to synonymously as a "persistence" or "retention" issue, and failure to complete a certificate or degree is often referred to synonymously as a "completion" or "graduation" issue. So, which is

it, and does the distinction matter? Mortenson (2005) distinguishes between the two by stating that persistence is a “student-initiated decision,” while retention is used to track and report enrollment data from the institutional perspective and generally refers to a cohort of students defined by the state or federal government, i.e., first-time, full-time freshmen. Similarly, completion is often viewed as articulating what the student set out to accomplish, while a graduation rate is tracked and reported by the institution. For the purposes of this study, the terms *persistence* and *completion* are used by the researcher in the broadest sense, unless other terms are specifically used by authors or reported in data sets.

Attrition – the reduction in institutional enrollment that occurs when students are not retained.

Card Sort – a method in which subject matter experts sort a variety of concept statements; can be Closed or Open.

- *Closed Card Sort* – subject matter experts sort a variety of concepts into pre-determined categories provided by the researcher.
- *Open Card Sort* – subject matter experts sort a variety of concepts into categories of their own choosing and are asked to label the category.

Completion – achievement of all steps necessary to earn a degree or accomplish other educational goal.

Concept Card Deck – the set of statements used by the subject experts in the Card Sort.

Institutional Inhibitor – assumptions, attitudes, policies, practices, and/or information gaps that may act as a barrier to student persistence or completion.

Persistence – continuous enrollment in any institution until a degree is completed or other educational goal achieved.

Retention – enrollment from one semester to the next at the same institution.

Student Success – the overarching term that encompasses various student outcome metrics including persistence, completion, retention, graduation, credential attainment, credit accumulation, progression, etc.

Typology – systematic classification according to specific types.

LIMITATIONS AND DELIMITATIONS

The primary limitation is that the Concept Card Deck does not represent the entire range of possible institutional barriers due to the method used to generate the statements. Another limitation could be the restricted generalizability in extrapolating what was learned to the larger population of student success practitioners given the small sample size. A third limitation is the possibility of a community sampling bias given that all those initially recruited for the sample had previously interacted with the researcher in her professional capacity (through the use of chain referral, or snowball sampling). Further discussion of the efforts to mitigate these limitations can be found in Chapters Three and Five.

Two major delimitations were put in place. First, the researcher chose not to identify the student success practitioners by institutional type (highest degree, size of student body, etc.). The Concept Card Deck was intended for initial use by a student success practitioner with at least five years of experience, at *any* institution. The researcher addresses this through the creation of an institution-specific Concept Card Deck as described in the Facilitator Guide in Chapter Four.

The second delimitation is that this study addresses only the administrative perspective on potential institutional inhibitors to student success. The researcher acknowledges the student perspective is clearly valuable and a necessary component to identifying and barriers to persistence and completion. The researcher further addresses this delimitation through recommendations for application of tools developed in Chapter Four.

ORGANIZATION OF THE STUDY

Chapter One introduced the current state of the research and argued for the significance and purpose of this study, as well as provided a brief overview of the research context, methods, and definitions. Chapter Two provides a comprehensive literature review of the major contributors to the research on student attrition, the resulting focus on student variables and programmatic interventions, as well as the smaller body of research on institutional contributions to the issue. Chapter Three outlines in detail the methodology of the study, discusses the role of the researcher, and provides the findings. Chapter Four consists of the product: the workbook in which the researcher provides three tools for institutions to use in auditing their potential inhibitors to student success. Chapter Five summarizes the study and examines the applicability of the workbook to current institutional practice, as well as makes recommendations for further research in the area of potential institutional inhibitors to student persistence and completion.

SUMMARY

The Institute for Higher Education Policy (2016) asserts that the evidence clearly indicates higher education is the key to economic success, both on the individual and societal

levels. But a troubling number of students make the decision to leave college without having obtained the credential that would propel them further toward such success. This current state of affairs has given rise to the completion agenda—a national push by the government, non-profit organizations, think tanks, and others to dramatically increase student completion rates and the number of Americans with college credentials.

After decades of research, much of what is widely accepted and believed about student attrition focuses on student behaviors or lack of preparedness. The resulting interventions typically offer programs and high-impact practices designed to address a student deficit. While these practices have been shown to slightly increase persistence with specific student groups or at individual institutions, no significant national progress has been made at increasing aggregate numbers of credential and degree attainment (ACT, 2015; IHEP, 2016). While a few scholars have begun to examine the impact of institutional practices and policies on student progress, there is currently not a comprehensive body of research addressing student success from such a perspective.

Recognizing that all three elements—the student variables, the targeted programs that have emerged from the research, and the institutional variables—contribute to the desired outcome of increased credential attainment, this study attempts to address that gap. Before presenting the methodology and the resulting product to assist institutions in an audit of their own potentially inhibiting practices, it is important to understand the literature and research that have influenced the field of student success.

CHAPTER TWO: LITERATURE REVIEW

INTRODUCTION

There is a 40-year foundation of research on persistence and retention. The factors influencing student departure have been widely considered. While different fields of study (psychology, sociology, etc.) have been used to hypothesize the reasons student leave college, the vast majority emphasize the importance of students' characteristics, behaviors, and choices in their decisions to drop out (Barnett, 2011). In turn, this influenced the development of now widespread interventions primarily known as high-impact practices (Kuh, 2008). While these targeted programs and practices have been shown to have positive but limited effects on the retention and/or completion rates of various specific populations or at specific institutions, no significant gains have thus far been seen at the national level (ACT, 2015). Periodic studies can be found relating to the possibility that institutional factors may also contribute to student departure, although institutional factors are defined in a variety of ways.

This literature review traces the major stages of student success research through the contributions of the dominant early scholars, the subsequent development of inquiry related to student variables, and the emergence of programs and practices aimed at addressing those variables. The researcher then examines the development, primarily in the past decade, of the possibility that an institution's policies and practices may also contribute to student departure.

EARLY STUDENT ATTRITION THEORIES AND CRITICISM

Research on the phenomenon of student attrition from institutions of higher education begins to appear in the late 1960s following the unrest of the Civil Rights Movement, the War on Poverty, and the changing face of the student population (Berger & Lyon, 2005). In their summary of student attrition studies, Pantages and Creedon (1978) reflect on Summerskill's (1962) comprehensive review of 35 attrition studies from 1913 to 1953 in which he observed at the time that the percentage of students lost had not changed significantly in four decades.

Spady's (1970) article, "Dropouts from Higher Education: An Interdisciplinary Review and Synthesis," drew on Durkheim's (1960) theory that suicide occurs due to lack of societal integration, and created an analogy with a student dropping out due to lack of integration into the social system of college. Spady (1970, 1971) proposed five independent variables, four of which (grades, intellectual development, normative congruence, and friendship support) influence the fifth (social integration). This line of research prompted further exploration by Tinto (1975, 1987, 1993), Astin (1975, 1984), and Bean (1980), resulting in the now-ubiquitous approach to student departure centered around the concepts of student integration and involvement.

Tinto's (1975) early exploration built on Spady's (1970, 1971) concept of social integration. He continued to revisit and expand this theory, and in 1987 posited that students must navigate a staged process (separation, transition, and incorporation) to establish membership in college communities. Lack of knowledge of how to navigate this process impacts students' decisions. Tinto (1993) further revised his model in the second edition of *Leaving College: Rethinking the Causes and Cures of Student Attrition* with the clarified central premise

that persistence in college is a process of “social and intellectual integration leading to the establishment of competent membership in the college communities” (p. 1). In his model, which he called an “integration framework,” Tinto (1993) suggested that students are more likely to remain enrolled in an institution if they become integrated.

According to Tinto (1993), student integration can occur along two fronts—academic integration occurs when students become involved in the intellectual life of the college, while social integration occurs when students create connections and networks outside of the classroom. To increase the probability of persistence, students need to be integrated into the institution both socially and academically, but they do not have to be equally involved in the two. Integration can mean developing connections to individuals, participating in clubs, and/or engaging in academic activities.

Tinto’s (1993) work also posited different levels of attrition: individual and institutional. At the individual level, Tinto’s hypothesis was that intention and commitment are the main factors in a student’s decision to leave college. Student intent is important in studying attrition because not all students attend college with the intent to earn a degree, and commitment is important because if students do not have a clear goal they will leave. At the institutional level, he hypothesized that adjustment, difficulty, incongruence, and isolation were the main factors in a student’s decision to leave college. A student experiencing adjustment problems may leave quite early in the college experience; difficulty referred to increased academic rigor and a student’s decision to leave to avoid failure. Incongruence, or a lack of institutional fit, meant students “perceive themselves at odds with the institution” (Tinto, 1993, p. 50). Students who do not feel at home in an institution, do not believe that an institution can help them meet

their goals, and who are isolated and disengaged from social interactions were unlikely to persist (Tinto, 1993).

While Spady and Tinto explored the sociological aspects of integration, or lack thereof, into a community, Astin (1975, 1984) attempted to pinpoint environmental factors that considerably affect the student's persistence in college. Findings from longitudinal surveys of large student groups indicated "the factors that contributed to the student's remaining in college suggested involvement, whereas those that contributed to the student's dropping out implied a lack of involvement" (Astin, 1984, p. 6). The most significant of the involvement factors was living on campus, joining social groups, extracurricular activities, and holding a part-time job on campus. Astin (1984) developed these findings further into what he called the student involvement theory, defining involvement as "the amount of physical and psychosocial energy that the student devotes to the academic experience" (p. 1).

Although his theory primarily focused on the motivation and behavior of the student, Astin (1984) saw implications for the institution as well, noting student time and resources as institutional resources and

thus, all institutional policies and practices . . . can be evaluated in terms of the degree to which they increase or decrease student involvement. Similarly, all college personnel . . . can assess their own activities in terms of their success in encouraging students to become more involved in the college experience. (p. 12)

This is one of the earliest references to the possibility that institutional policies and practices might be responsible for or contributing to student attrition. Yet this possibility did not become a major focus of further research; instead, student engagement theory would

continue to be studied extensively over the next several decades and influence the development of practices and programs both inside and outside the classroom.

Criticism of Early Student Attrition Theories

Tinto's integration framework, and those of the other early, dominant persistence theorists, focused on four-year, residential institutions and was initially thought not to have much implication for non-traditional populations, such as those found at community and technical colleges, because as Karp, Hughes, and O'Gara (2008) note, "It is assumed that community colleges provide students with fewer opportunities for social integration and that the social aspect of postsecondary education may be less appealing to students attending two-year commuter institutions" (p. 3). Several studies sought to establish the level of importance of social and academic integration among different types of students. For example, the majority of older students, who live off campus, do not value social integration as a significant factor in the decision to stay or go (Andres, Hawkey, & Andruske, 1996; Bean & Metzner, 1985; Stahl & Pavel, 1992).

Tinto (1993) himself questioned whether the mechanisms that encourage social integration are relevant to community college and commuter students, although he later expanded his theory as it relates to academic integration in the college classroom, noting

most students in higher education work and/or commute to college . . . the classroom may be the only place where they meet each other and the faculty and engage in formal learning activities. If involvement does not occur there, it is unlikely to occur elsewhere. (Tinto, 2009, p. 4)

Karp, Hughes, and O'Gara (2008) conducted in-depth interviews with first-year community college students to examine the ways they engage with their institutions. Contrary to typical

studies invoking Tinto's framework, the researchers found that academic and social integration develop in concert for community college students, and

the majority of them do develop attachments to their institutions. Moreover, this sense of attachment is related to their persistence in the second year of college. The same activities lead to both academic and social relatedness. This is particularly true for information networks that students develop in the classroom. (p. 1)

A number of additional researchers have tested Tinto's integration framework with different populations. Braxton (2002) edited a volume of articles presenting strengths and weaknesses of the model based on tests at single and multiple institutions, and suggesting further research in new directions. Further tests of the model have shown strong empirical support for its use at residential institutions, but modest support at community colleges, particularly the social integration aspect. A major criticism of Tinto's model points out that it seems to indicate that to succeed a student must become immersed in and learn a new culture—the academic culture of college—to the detriment of their home culture, which for many nontraditional and minority students can be a strong source of support and identity (Karp, 2011). The academic integration in the classroom seems to be the most applicable part of the model for community colleges (Bailey & Alfonso, 2005).

FOCUS ON STUDENT VARIABLES

While some scholars researched, tested, and developed theories related to Tinto's and Astin's broad concepts of student integration and engagement, others such as Bean and Metzner (1985), Pascarella and Terenzini (1991), and Braxton (2002) focused on student variables that could affect the degree to which a student integrates and the choice to stay or leave the institution. Demetriou and Schmitz-Sciborski (2011) identified the variables most

often cited as contributing to persistence and completion, including: academic preparation, academic and social engagement, financial means, and demographics. Other work has explored the potential effect of psychological variables and interventions, including such factors as student intention/goals, motivation/effort, and resilience/grit. The typical research involves a hypothesis that the student or group of students lacking the variable will be less likely to persist and complete, while conversely, the student or group of students with more of the variable will be more likely to persist and complete.

Academic Preparation

Adelman (1999) found that high school academic achievement is positively related to undergraduate retention—students with a higher GPA in high school are more likely to have a high GPA in college. Taking a rigorous and/or advanced high school curriculum has been shown to indicate success in college. As Kuh, Kinzie, Buckley, Bridges, and Hayek (2006) wrote, “Those students who are best prepared coming out of high school are best positioned to do well in college, regardless of who they are, how much money they have or where they go” (p. 19). Additionally, the most significant predictor of a student’s likelihood to graduate is academic success in the first year and continuous academic progress after that (Bowen, Chingos, & McPherson, 2009), as opposed to stuttering academic progress in which a student withdraws for some length of time, returns, withdraws, and repeats the cycle.

Academic and Social Involvement/Engagement

Academic engagement involves faculty-student interaction and usage of support services such as learning centers, tutoring, and faculty office hours. Social engagement includes

not only the establishment of friendships but also participating in student organizations, clubs, and groups to develop ties to the campus community. Further research has continued to support Astin's early student involvement findings: Habley (2004) demonstrated that academic engagement has been shown to positively influence retention, and Pascarella and Terenzini (1977, 1991, 2005) demonstrated regular and constructive interaction with other college employees beyond the classroom predicted persistence.

Financial Means

The National Center for Education Statistics (NCES, 2015c) reports that "students from families with a low socioeconomic status (SES) are less likely than those from families with a higher SES to obtain higher levels of postsecondary education" (para. 1). Specifically, 14% of low SES students obtain a bachelor's degree or higher within eight years of high school completion, as compared to 29% of middle SES students (NCES, 2015c). While those studies present findings at a national level, Tinto's (2004) research at a more particulate level found that students who owe a balance (unmet need) on their institutional bill often must work, live off-campus, or take part-time classes, all of which negatively influence retention. Swail (2004) found that first-generation students also tend to have higher financial need than other populations, contributing to a higher risk for not completing.

Demographic Characteristics

Multiple variables related to student demographics have been extensively studied for their impact on retention, including race and ethnicity, gender, and family educational attainment. Strayhorn (2012) found that data consistently show a large disparity in the

retention rates of minority students versus their white counterparts, stating, “College participation rates have increased for all groups over the past 30 years. However, significant gaps across racial/ethnic groups persist” (p. 29). While more minority students are going to college, they remain less likely than white students to stay in college or to earn a credential. The most recent data available show that of students who entered college in 2007, 63% of whites earned a degree in six years, compared to 40% of blacks and 53% of Hispanics, (NCES, 2014, 2015b).

Seidman (2005) provided specific examples of ways in retention efforts might be tailored for various minority groups, but noted that the “commonalities in the inability of American Indian, African American, and Hispanic students to become successfully integrated . . . include a lack of academic preparation, lack of a critical mass of students with similar ethnic characteristics” (p. 18). This language of “inability” and “lack” related to the student is a key feature of retention research that reveals an important aspect of the mindset that led to the development of many targeted intervention programs. Strayhorn (2012) moved toward a rejection of the language of inability and lacking by deliberately taking an “anti-deficit, strengths-based perspective” (p. 18) in studying retention for a wide variety of groups including Latino/a, Gay, First-Year, Graduate, Black Male, and STEM college students.

The educational attainment of a student’s family has long been studied for potential effect on persistence and completion. Although the definition can vary greatly when considering such factors as one parent or two, biological parents or any adult in the home, or more recently defined as the first person in the immediate family to attend college, much has been learned about “first generation” students: they are likely to also be minority students,

among the least likely to graduate, and likely from low-income families (Demetriou & Schmitz-Sciborski, 2011). NSSE data found that in 2005 approximately one in three students were from families in which neither parent had any level of higher education; this number remained steady in 2010. Familial educational attainment affects future aspirations—students whose mothers completed college were twice as likely than peers to identify earning a college degree as their goal (McCarthy & Kuh, 2006)—as does race/ethnicity and socioeconomic background (Hamrick & Stage, 2004).

Psychological Variables and Interventions

Fixed and past variables of success, such as the high school curriculum, race/ethnicity, and first-generation status, cannot be changed. Some research has focused instead on future variables as indicators of potential success—how the student responds to adversity once in the college environment.

Students who know they are “lacking” in something (resources, experience), or perceive they may be negatively intellectually stereotyped (due to race or gender), often undervalue their potential to achieve in the college classroom (Yeager & Walton, 2011). Dweck’s (2006) research found that students who believe intelligence is fixed responded to poor academic performance by withdrawing, while those who believe intelligence can be improved responded to poor performance with resilience (putting in more effort, asking for help, etc.). Simple psychological interventions have been shown to have a profound effect, changing a student’s mindset from “fixed” to “growth” (Dweck, 2006) and dramatically improving academic performance (Yeager, Paunesku, Walton, & Dweck, 2013).

Further research related to motivation and effort can be seen in the work of Duckworth on the predictors of success. Duckworth, Peterson, Matthews, and Kelly (2007) defined “grit” as “perseverance and passion for long-term goals . . . working strenuously toward challenges, maintaining effort and interest over years despite failure, adversity, and plateaus in progress” (pp. 1087-1088). The team developed and tested a Grit Scale, finding that achievement is the result of not only talent but “sustained and focused application over time” (p. 1087).

Criticism of Student Variables

The research discussed above has shown that students with greater access to financial support, or who were already more prepared by a more rigorous high school curriculum, or whose family has some level of higher education attainment, are more likely to succeed in college. While programs and interventions continue to be targeted to students in these groups, the focus on student variables such as academic preparation, academic and social engagement, financial means, and demographics as an avenue of inquiry has not drawn criticism. The psychological variables and interventions have drawn a more heated response, as critics contend that trying to change a student’s “mindset” amounts merely to magical thinking or tricks. The researchers contend, in turn, that their results show improvement with tens of thousands of students and continue to devise interventions (Yeager et al., 2013).

DEVELOPMENTS IN ATTRITION INTERVENTION AND MITIGATION

As Tinto (2009) noted, “We now have a range of models, some sociological, some psychological, and others economic in nature that have been proposed as being better suited to the task of explaining student leaving” (p. 3). Although research on “explaining student leaving”

branched out beyond the integration and engagement models, it continued to primarily focus on the student and posit him or her as lacking in some essential variable: finances, academic preparedness, motivation, etc.

The National Survey of Student Engagement (NSSE, 2007) and Kuh (2007) published findings about integration, engagement, demographic variables, and their implications for work with various groups of students. Further work led to the development of a number of attrition interventions and mitigation trends that came to be known collectively as high-impact practices. Kuh (2008) defined traits of high impact practices as demanding considerable time and effort, facilitating learning outside of the classroom, requiring meaningful interactions with faculty and students, encouraging collaboration with diverse others, and providing frequent and substantive feedback. These practices have shown limited but positive impact on student persistence (NSSE, 2009, 2012).

The high impact practice movement was further solidified through the research of the Center for Community College Student Engagement (CCCSE), which identified activities and programs such as mandatory orientation, accelerated developmental education, early alert systems, and supplemental instruction as predictors of positive impact on rates of retention and engagement (CCCSE, 2013). Some programs mix several of the interventions, but the shared factor amongst all is increased engagement with the student. These practices have become increasingly common in both two and four-year institutions, particularly first-year experience or student success courses, and learning communities. The MRDC (formerly Manpower Demonstration Research Corporation) and the Community College Research Center

have continued to study the effectiveness of these and lesser-known practices, such as performance-based scholarships.

Student Success Courses

The student success course has been developed as an additional support service to help underprepared students overcome obstacles to success and improve academic outcomes. Typically offered as a “first-year experience” course, the model grew out of orientation programs and freshman seminars often seen at traditional four-year institutions, but expands the scope to any student attending college for the first time. Goodman and Pascarella (2006) reviewed Pascarella and Terenzini’s (1991, 2005) findings of substantial evidence that first-year experience courses increase persistence from the first to second year of college through multiple forms of academic and social integration. Cho and Karp (2013) found statistically significant positive associations between enrollment in a student success course and credit-attainment and persistence. As research continues to demonstrate the effectiveness of this programming, such courses are expanding beyond the first-year and into the second and third years to provide continued support for student success.

Learning Communities

According to Bailey and Alfonso (2005), learning communities have become a common approach because of the potential for more in-class engagement with commuter students, who may not have a chance to participate in social and other extra-curricular activities at the college. Karp (2011) defined a learning community as

a pair or group of courses taken by a cohort of students, often linked by a theme and team-taught. Learning communities vary in their structure, from a pair of linked courses to blocks of courses that encompass students' entire course schedules for a semester or year. (p. 4)

Some learning communities include a student success course or targeted support services. Karp found multiple studies that have identified positive persistence and completion outcomes for learning community participants than for non-participants.

Intrusive Student Support Services

Intrusive student support services are another strategy that has shown promising results in promoting student persistence. In the intrusive model, non-academic support becomes an integral part of every student's experience, whether they think they need it or not. This can come in various methods, including mandatory advising sessions, student success courses, or the implementation of an early warning system that alerts counselors when a student misses a certain number of sessions or receives failing grades. Another intrusive method is to bring non-academic support into the classroom, such as having math faculty use the Free Application for Federal Student Aid (FAFSA) to combine teaching math skills with financial aid literacy (Karp, 2011). This approach provides commuter students who might not have extra time to seek out student services with additional opportunities to receive assistance.

In a comparison study of two institutions, Karp, O'Gara, and Hughes (2008) found that over 80% of students who used two or more support services made progress toward a degree, but for students who used less than two support services that number fell to 60%. Karp, O'Gara, and Hughes also found that "an unintended consequence of the policy exempting part-time

students from taking a Student Success course is that those students likely to be in most need of assistance did not get it, while their more advantaged, full-time peers did so” (p. 12).

Performance-based Scholarships

Another approach to improving student persistence has emerged in the form of performance-based scholarships, which support the theory that additional financial aid may improve persistence and academic performance of low-income students. While the specific requirements and amounts awarded by each program vary, the common elements are that a student is awarded a scholarship for either earning or maintaining a set GPA, or accumulating credits at a defined pace, or some combination of the two.

Previous research findings suggest a positive correlation. Patel and Richburg-Hayes (2012) studied the Performance Based Scholarship (PBS) Demonstration project in six states (OH, NM, NY, CA, AZ, FL) between 2008 and 2010. Though the state programs varied by target population, scholarship amounts, performance benchmarks, and the integration of student services, all programs required the following: all students were low-income, all funds were paid directly to the students in addition to Pell grants, and all awards were based on performance in the current term *regardless* of past academic performance. The study used a random assignment research design, and early findings showed statistically significant increases in the following areas for students receiving the performance-based scholarships: credits earned in current semester; second-term full-time enrollment; debt reduction; and increased ability to meet end of semester benchmarks (Patel & Richburg-Hayes, 2012).

Summary

These four developments—student success courses, learning communities, intrusive student services, and performance-based scholarships—provide illustrative examples of the ways in which inquiry has focused on the variables students lack, and the creation of programming to address those variables. Research findings about integration, engagement, demographic variables, and their implications for work with various groups of students led to the development of a number of attrition interventions and mitigation trends that have shown limited but positive impact on student persistence (NSSE, 2009, 2012). As a whole, this body of work provides a solid foundation for understanding potential causes of student attrition and factors that influence the decision to leave college. But it remains an essentially student-centered approach, spurring researchers to further explore, develop, and recommend a wide variety of intervention programs or practices with specific target populations.

EMERGENCE OF POTENTIAL INSTITUTIONAL INHIBITORS

The integration and engagement models have served for decades as the foundation of student attrition research. The possibility that factors other than those related to the student—that the institution could be creating barriers that increase student attrition—exists only on the edges of the literature, perhaps because most researchers conceived of the student as the sole source, or the more reliable source, of information about reasons for withdrawal. Some of the early research (Spady, Tinto, Astin) that produced the integration and engagement models inspired additional inquiry into how students experience organizational attributes, although attributes in those cases often referred to structural demographics (such as size, highest

degree, selectivity, etc.). Additional research probed organizational structures and the development of the field of enrollment management with efforts to align practices related to admissions, registration, and financial aid. Only in the past decade has a more persistent focus emerged on this question: What could the *institution* improve about itself that might in turn improve the student's experience, and thus their likelihood of persisting and completing?

Organizational Attributes

Astin and Scherrei (1980) looked at the effect of presidential and administrative behavior on the degree to which students feel the college is concerned about them. Their findings suggested that organizational behaviors may have an effect on student persistence. In reviewing a history of studies of organizational attributes as related to student integration, Berger and Braxton (1998) wrote, "Participation in decision-making, fairness in administration of policies and rules, and communication have been found to affect student departure decisions (Bean, 1980, 1983; Braxton & Brier, 1989)" (p. 1). Berger and Braxton's (1998) own study furthered this line of inquiry by finding a significant effect on persistence for the following organizational attributes:

- institutional communication (how well is the respondent informed about academic rules, social rules, course requirements, and graduation requirements);
- fairness in policy and rule enforcement (how fairly does the institution enforce academic rules, social rules, grading, and awarding scholarships);
- participating in decision making (how much say the respondent has in kinds of course assignments, amount of course assignments, making social rules, and making academic rules).

Berger (2001-2002) continued to find that students were more likely to be retained when they have experiences with administration that support rather than impede their progress. Braxton,

Hirschy, and McClendon (2004) identified two additional organizational characteristics related to persistence and completion: institutional integrity and institutional commitment to student welfare. Students who perceived alignment between institutional mission and values and the actions of staff, administrators, and faculty were likely to have higher levels of commitment to the institution (Braxton et al., 2004).

Organizational Structure

In addition to the potential organizational attributes such as fairness, communication, and integrity described previously, a link may also exist between organizational structures—policies and practices—and student retention. Summers (2000, 2003) was one of the first researchers to identify what he called the “less studied variables” (2003, p. 73) of late registration and student class schedule changes as having a significant impact on attrition rates. He concluded that his study “provides empirical evidence that enrollment and registration behaviors can predict a significant amount of the variation in student academic outcomes” (2003, p. 77). However, Summers did not consider whether the institutions should *allow* the students to make these choices to register late or change their schedules—that is, he did not consider the effectiveness of the policy itself, or what might happen if it did not exist. He simply referred to his research as “student enrollment and registration behaviors” (2003, p. 73).

Cuseo and Farnum (2011) underscored the power of policy and practice in their brief “Seven Myths of Student Retention,” when they wrote:

Many of the beliefs that are ratified in the student retention realm—sometimes informally via the academic culture and other times directly in policies and practices—are exactly that: myths, or unproved or false collective beliefs that are used to justify social institutions. (p. 1)

These myths have led institutions to: raise admissions standards (believing “better” students are more likely to be retained); recruit wealthy students (believing richer students are more likely to be retained); assume students who leave do so because they flunk out or have some other problem the institution cannot address; and assume they are already doing the best they can to address retention. Unfortunately, as Cuseo and Farnum (2011) pointed out, research by the College Board (2011) has shown that campus resources for retention are nominal and insufficient.

Some linkages between organizational structure and student persistence can be seen in research specific to the community and technical colleges. The United States system of higher education is characterized by choice and flexibility, but it may be those two characteristics contribute to students being overwhelmed and confused—particularly in community colleges, as Cohen and Brawer (2008) noted, where the multiplicity of degrees and programs is unique to the U.S. Once students make a choice as to a particular program of study, they are faced with even more decisions regarding how many courses to take and on what days, and must navigate a maze of new terms and acronyms related to credits, financial aid, registration, etc.

Authors Deil-Amen, Person, and Rosenbaum (Deil-Amen & Rosenbaum, 2003; Person, Deil-Amen, & Rosenbaum, 2006; Rosenbaum et al., 2006) compared community colleges with private occupational colleges and found that “community colleges implicitly demand social know-how about how to navigate a college environment and its bureaucratic structures. . . . We suggest that students’ social know-how . . . is likely to affect their ultimate college success”

(Deil-Amen & Rosenbaum, 2003, p. 121). This social know-how is a set of skills and knowledge about the paths and steps to make progress through an institution.

Without social know-how, nontraditional students face what essentially becomes a “hidden curriculum” and seven key obstacles: bureaucratic hurdles, confusing choices, student-initiated guidance, limited counselor availability, poor advice from staff, slow detection of costly mistakes, and poor handling of costly demands (Deil-Amen & Rosenbaum, 2003). The authors suggested that community colleges could learn from their private occupational counterparts approach through limited choice and structured advising. The work culminated in the 2006 book *After Admission*, in which Rosenbaum et al. further delineated the case for changes in organizational procedures designed to “structure out” the need for social know-how (p. 128). Though the authors specifically limited their study to community colleges due to the comparisons they were able to make with occupational colleges, they recognized the implications could apply to four-year institutions as well.

Scott-Clayton (2011) expanded Rosenbaum et al.’s (2006) definition of structure beyond institutional policies and procedures to include “norms and nudges that may more subtly influence individuals’ decisions at a point of action” (p. 2). She argued there is strong indication that community college students are often overwhelmed and baffled when attempting to navigate the higher education system, and advanced the hypothesis that “students will be more likely to persist and succeed in programs that are tightly and consciously structured, with relatively little room for individuals to unintentionally deviate...and with limited bureaucratic obstacles for students to circumnavigate” (p. 1).

Noting the lack of research examining the role of structure in persistence and completion, Scott-Clayton (2011) set out to delineate the complexity of decision-making faced by students due to the enormous number of choices, and offered evidence from psychology, marketing, and behavioral economics in support of limiting choices. She discussed several potential mitigations, including enhanced advising, assistance in navigating bureaucracy, and linking cohorts and curricula through learning communities or educational paths. As in the case of Rosenbaum et al. (2006), although this work focused on community colleges, there is clear applicability to four-year institutions in which students struggle to navigate a maze of bureaucracy and curricular choices.

Organizational Improvement

In addition to considering the impact of organizational attributes and organizational structures, additional research has probed the broader concept of organizational improvement and its applicability to student persistence and completion. Rather than looking at attrition as something that can be fixed by simply adding programs or services, this view “reflects a continuous improvement process that is at the heart of an overall model of organizational redesign” (Jenkins, 2011, p. 38). Jenkins (2011) explicitly linked student learning and faculty to the improvement process, and provided recommendations for involving all institutional stakeholders, including external employers, community groups, K-12 schools, etc.

In a similar vein, Kalsbeek (2013) introduced the “4P Framework” as a “construct for reframing the retention discussion in a way that enables institutional improvement by challenging some conventional wisdom and prevailing perspectives that have characterized

retention strategy for years” (p. 6). The 4Ps are institutional factors that affect institutional assumptions about retention:

- *Profile*: Graduation rates are institutional attributes as much as they are institutional accomplishments and are largely a function of institutional and student profile. (p. 8)
- *Progress*: Insofar as degree completion is the outcome of successfully meeting the academic requirements of a curriculum, academic progress is at the core of retention strategy. (p. 9)
- *Process*: Just as a rising tide lifts all boats, improving broad processes that affect the greatest number of students is the optimal institutional focus for retention strategy. (p. 10)
- *Promise*: Focusing on those student outcomes that are integrally a part of the institution’s core purposes and brand promises brings reciprocal benefits to the institution as much as to the students. (p. 11)

To illustrate the contrast between these four factors and the prevailing perspectives, Kalsbeek drew an extended example of Typical University (TU): a retention task force is assembled and will likely zero in on improving first-to-second year persistence rates of small “at-risk” populations. TU will likely struggle to see improvements because “the university will overemphasize approaches to student success that are not directly determinate of degree completion and it will attend to making improvements at the margin, rather than at the core, of institutional activity” (Kalsbeek, 2013, p. 8).

The parable of Typical University encapsulates several key themes found in Kalsbeek’s (2013) work, primarily that retention strategy begins with institutional self-awareness and requires addressing structural conditions for institutional improvement. According to Kalsbeek, too many institutions focus on haphazardly adding new programs and services rather than taking time to self-evaluate and determine where the biggest return on change investment may lie.

Most recently, this focus on wide-scale institutional reform and improvement can be seen in the work of Bailey et al. (2015), who traced the history of the rapid expansion of American higher education and the resulting “cafeteria model” in which students must navigate a complex menu of disconnected curriculum choices. Bailey et al. (2015) argued that “to improve their outcomes on a substantial scale . . . colleges must undertake a more fundamental rethinking of their organization and culture” (p. 12) by integrating student support services with fewer and narrower curricular choices.

CONCLUSION

Despite decades of research, an answer to the “departure puzzle” as coined by Braxton et al. (1997) remains elusive. The principal studies that have led to the development of influential models of student integration and engagement are generally agreed to be those of Spady (1970, 1971), Tinto (1975, 1993, 2012), Pascarella (1980), Astin (1975, 1984), Bean and Metzner (1985), and Pascarella and Terenzini (1991). As a whole, this body of work provided a solid foundation for understanding potential causes of student attrition and factors that influence the decision to leave college. But it remained an essentially student-centered approach focused on what students might be lacking, and spurred researchers to further explore, develop, and recommend a wide variety of intervention programs or practices with specific target populations, also known as high-impact and engagement practices.

Such practices include but are not limited to learning communities, student success seminars, intrusive student support services, and performance-based scholarships. Although these one-to-one or targeted group interventions have shown some positive impact on some

campuses, there remains a persistent lack of significant progress at the national level in increasing aggregate percentages of retention or credential attainment (ACT, 2015; IHEP, 2016). Additional research expanded beyond the student variables and began to consider institutional factors, such as organizational attributes (fairness, communication, and integrity) and organizational structure (policies, procedures, and norms), before most recently reflecting on the need for an entire system-wide overhaul with recommendations for organizational improvement.

This literature review demonstrates that while initial work has begun related to identifying potential institutional barriers to student success, it is in the early stages. To further advance this important area of inquiry, the researcher engaged in the study described in the following chapter.

CHAPTER THREE: METHODOLOGY

INTRODUCTION

In this chapter the researcher provides the motivation and rationale for this qualitative study, and describes the methodology, sample, participants, and analysis elements used. In support of the project goal to develop a typology of potential institutional barriers, the researcher used Card Sort methodology to gain an initial understanding of how student success practitioners make sense of and categorize information, and used topic normalization and analysis to identify common themes.

RESEARCH QUESTIONS

Three guiding questions directed the project toward its final outcome of creating a useful product that contributes to the study of a campus's procedural, structural, and cultural barriers to student persistence and completion. Specifically:

1. What are the most common types of barriers to student persistence?
2. To what extent do practitioners agree on the types of barriers?
3. How can potential barriers be identified through an examination of campus procedures, structures, and culture?

By answering these questions, the researcher intended to provide a set of tools for institutions to use in recognizing their own potential contributions to the low retention and graduation rates, and initiating plans to address them.

RESEARCH DESIGN AND PROCEDURE

Context and Framework

Merriam (2009) explains that qualitative research design is characterized by its attempt to understand how people make sense of their experiences. Along those lines, this study was conducted using a qualitative approach to examine the ideas and perceptions of student success practitioners about the ways in which an institution's policies, practices, and procedures may inhibit student progress and persistence.

The motivation to pursue this project emerged from ideas and information collected during activities carried out in the researcher's professional capacity. Conference and workshop attendees listened to a presentation by the researcher in which they were asked to consider if institutions play a role in low retention and graduation rates and were subsequently provided with examples of possible institutional barriers. After the presentation, attendees then participated in discussions, generated ideas, and on index cards wrote responses to the question: *Have you experienced or heard of any potential institutional inhibitors to student persistence and completion?* Responses were anonymous.

While listening to the table discussions and later exploring the written responses, it became clear to the researcher that many of the attendees were talking and writing about similar potential barriers, but using different terms and acronyms. This seemed to indicate that some barriers might be quite common. Other responses were unique, but generated intense table discussions related to potential solutions. The desire to provide a useful tool to assist institutions in further identifying these barriers, and the lack of a common set of terms with which to communicate about them, led the researcher to seek a qualitative approach that

would facilitate further examination and categorization of the ideas and perceptions of student success practitioners.

Card Sort Methodology

In keeping with the goal of developing a typology of institutional barriers to student persistence and completion, card sort methodology emerged as the fitting approach for this project and was used to determine the categories or typology of barriers that served as the organization for the Inventory tool in the workbook. Spencer (2004) writes that “card sorting is a great, reliable, inexpensive method for finding patterns” (para. 1).

A card sorting study is conducted by creating a set of concept cards that represents the area of inquiry (Paul, 2014). One concept, or statement, is written on each card to create a Concept Card Deck. Participants physically sort the deck of cards into groups. The groups of cards can be then labeled by content, impact, functionality, theme, category, or any other title that makes sense to the participant. This method allowed the researcher to understand how participants made sense of the examples of institutional barriers that were provided by attendees and participants during activities at persistence and completion presentations.

There are two approaches to card sort methodology. In an Open Card Sort participants are given the set of cards with instructions to sort the cards into groups that make sense to them. Participants then name each group in a way that they believe best describes the content. A Closed Card Sort asks participants to sort the cards into a predefined set of established categories provided by the researcher (“Card Sorting,” n.d.). Since the goal of this phase of the project was to identify categories of inhibitors of student persistence to create a typology, an

Open Card Sort methodology was used, as illustrated in Figure 3. The six cards on the left have been sorted and labeled on the right.

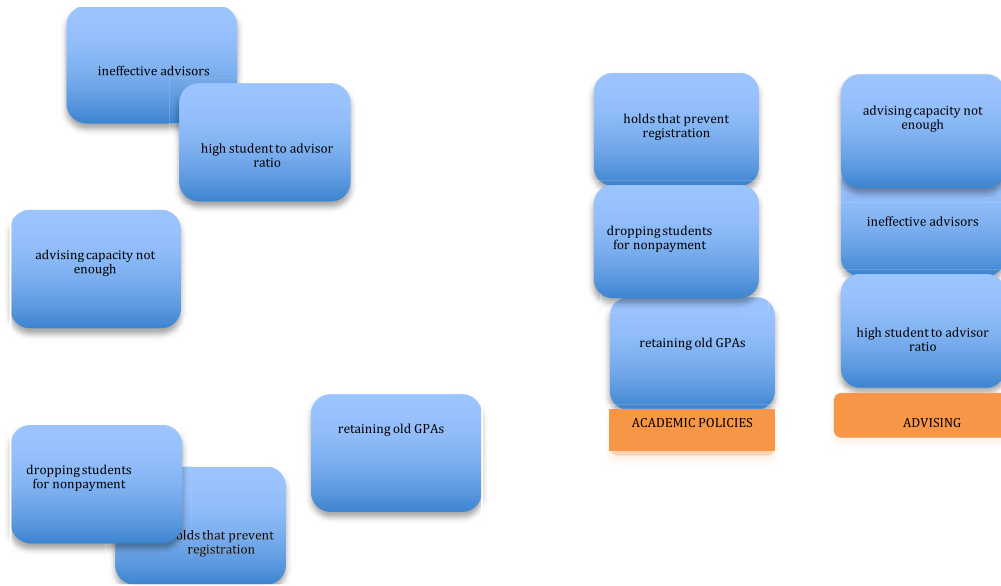


Figure 3. Open Card Sort

Example Statements

To create the deck of concept cards used in the Open Card Sort, the researcher relied on example statements of how institutions may inhibit persistence and completion. These statements were gathered anonymously from attendees and participants during activities at presentations and workshops focused on student retention. As part of the IRB process and prior to commencement of the formal study, permission was obtained from the researcher's employer to use information generated in her professional capacity as material for the card sort (see Appendix A).

A total of 310 examples of potential institutional barriers emerged from the anonymous information gathered during the workshop and presentation activities. Because the workshop and presentation attendees represented a wide variety of institutional types (two-year, four-year, tribal, public, private, non-profit, for-profit, etc.), and to protect the anonymity of the participants, no attempt was made to categorize the example statements by institutional type. Duplicates and unclear examples were eliminated and statements were edited for clarity, resulting in a list of 120 statements (see Appendix C). The statements were randomly assigned numbers and printed on labels. The labels were attached to 3 x 5 cards to create a Concept Card Deck.

Sample

To identify and invite relevant participants to the Card Sort Activity, the researcher used Snowball sampling (also known as Chain referral sampling). Snowball sampling is a “non-probability sampling technique that is used by researchers to identify potential subjects in studies where subjects are hard to locate (“Snowball Sampling,” n.d., para.1). Specifically, exponential non-discriminative snowball sampling was used, in which each subject was given the opportunity to provide multiple referrals, as opposed to linear snowball sampling in which the sample is begun with one subject and the subject provides only one referral (Dudovskiy, n.d.).

Snowball sampling was selected because of the challenge involved in identifying the individual(s) on a campus that have experience working with issues of persistence and completion. While some institutions have a designated Persistence and Completion position, at

most institutions this responsibility is part of the job description of either specific administrators (Associate VPAA, Dean of Students, Director of Enrollment Management) or a committee/task force (Retention Committee, Strategic Management Committee, Task force on Student Persistence). It was assumed that through conferences, meetings, and professional associations, individuals involved in these activities know individuals at other institutions working on similar issues.

To identify the initial subjects using the exponential non-discriminative snowball sampling method, the researcher sent a recruitment email (see Appendix D) to 34 individuals she met in her professional capacity and knew to be involved in student retention work. These individuals served as initial links in the chain referral method through the invitation to nominate additional contacts to complete the Card Sort Activity. Qualifications sought were practitioners with at least five years of experience in student retention and completion at regionally accredited institutions, and who hold an advanced degree. Recognizing that a practitioner's experience in student retention and completion may be at multiple institutions over the course of a career, the researcher did not attempt to recruit the sample by qualifications that included a specific institutional type, size, or setting.

The recruitment email (see Appendix D) sent by the researcher to the initial 34 practitioners explained the purpose of and invited participation in the project through return of the informed consent document (see Appendix E) and description of the practitioner's qualifications. The communication also asked that the practitioner provide the preferred mailing address to which the deck of cards was sent. The recruitment email indicated that participants would have the opportunity to indicate other individuals they know who would be

qualified to participate in the activity, but would not be *required* to submit additional names. The researcher planned that individuals nominated through this continued chain referral method would receive an invitation to participate in the study along with the qualification confirmation and the card deck would again be sent out once the practitioner agreement and qualifications were confirmed.

Participants

Seventeen practitioners responded to the initial recruitment email. One provided the name of an additional recommended practitioner, using the snowball method. The researcher sent that recommended individual the recruitment email but did not receive a response.

After receipt of the affirmative response and the informed consent document, and after confirming the qualifications, the researcher sent each of the 17 practitioners the deck of cards, using their preferred mailing address, along with the instructions on how to complete the activity (see Appendix F). Practitioners were asked to sort the example statements into no more than 10 groups that the practitioner identified and labeled. Fourteen practitioners completed the Open Card Sort and submitted their responses, exceeding the researcher's goal of 10 completed Card Sorts.

Limitations and Delimitations of the Study

The major limitation is that the Concept Card Deck cannot be presented as representative of the complete range of potential institutional barriers due to the method with which it was generated. It is possible that some examples of barriers might have been

eliminated or not emerged at all because the presentation given by the researcher prompted the participants' thinking in particular ways.

While chain referral sampling makes sense as a methodological approach for this project given the need to develop a typology for the potential institutional barriers, it does have limitations. The researcher acknowledges the possibility of a community sampling bias given that all those initially recruited for the sample had previously interacted with the researcher in her professional capacity; attempts were made to mitigate this bias by ensuring the anonymity of those who actually responded. Additionally, the researcher acknowledges the small sample size and the limitations in extrapolating what was learned to the larger population of student success practitioners. While those limitations may be true of the chain referral method in general, in this study the practitioners were not providing data for quantitative analysis, but instead simply demonstrating how they would organize a set of already established examples.

The researcher chose two delimitations of the study. First, the researcher chose not to identify the student success practitioners by institutional type. As previously discussed, because the original example statements anonymously gathered to create the Concept Card Deck were not separated by institutional type, the Concept Card Deck was intended for initial use by a student success practitioner with at least five years of experience, at *any* institution. The researcher addresses the fact that some of the statements might not apply to, for example, a community college, through the creation of an institution-specific Concept Card Deck as described in the Facilitator Guide in Chapter Four.

The second delimitation is that this study addresses only the administrative perspective on potential institutional inhibitors to student success. The researcher acknowledges the

student perspective is clearly valuable and a necessary component if an institution is to identify and mitigate barriers it may have in place. The researcher further addresses this delimitation through recommendations for application of the tools developed in Chapter Four.

Category (Data) Collection

To preserve the confidentiality of the practitioners, no written data resulted from the card-sorting activity—the categories they created through the card sort process were submitted via the SurveyMonkey collection tool (see Appendix G). Following the completion of the activity, the instructions further directed the practitioner to record the number(s) of each card in each of their categories and create a label or title for that category. Practitioners also identified which examples in the concept deck fell outside the parameters of their categories, and provided comments and observations about the process. The task was estimated to take between 45 and 60 minutes.

The researcher entered only the categories and corresponding examples identified in SurveyMonkey into a spreadsheet. The researcher was available by phone or email to answer practitioner questions that may have arisen during the Card Sort Activity, but was not contacted with any questions.

Card Sorting Results Analysis

Card sorting data can be analyzed using both quantitative and qualitative methods. As Spencer (2004) pointed out, card sorting data analysis is “part science, part magic” (para. 34). Given the large number of example statements (120) used in this card set, the researcher used

qualitative topic normalization (Paul, 2014) and a spreadsheet tool provided by Lamantia (2003) to analyze the groupings.

Topic normalization is one of the most common qualitative card-sorting data analysis methods (Paul, 2014), and is “a process of merging similar participant-created groups (determined by terminology comparison and content analysis) into a single topic . . . essentially it is a way of creating an ‘averaged’ mental model” (p. 88). Lamantia (2003) also recommended topic normalization. Following the standard procedure for an Open Card Sort, in this study practitioners were asked to sort the Concept Card Deck into categories and then create a label for each category. In order to effectively compare the placement of the cards, the categories created by the practitioners needed to be normalized (Lamantia, 2003).

Using the topic normalization process, the researcher first sorted the category labels created by each participant into an alphabetical list. Each participant was instructed to create no more than 10 labels, but a few created fewer than 10, for a total of 128 category labels. Next, the researcher scanned the list for similar groups of category labels, combining them into clusters, then giving each cluster a name. For example, a “curricula” cluster emerged because several participants created labels such as “Curriculum Barriers,” “Curriculum Issues,” “Barriers related to curriculum,” etc.

The remaining participant-created categories were evaluated for potential synonyms with the researcher-created cluster labels, and then added as well (Lamantia, 2003). As anticipated, some categories from the original participant list did not fit into any of the researcher-created clusters. Once the clusters were created, the remaining raw data were entered into the spreadsheet template provided by Lamantia (2003) (see Figure 4) by recording

individual card numbers on the cards in a participant's raw category to the matching standardized category (Lamantia, 2003).

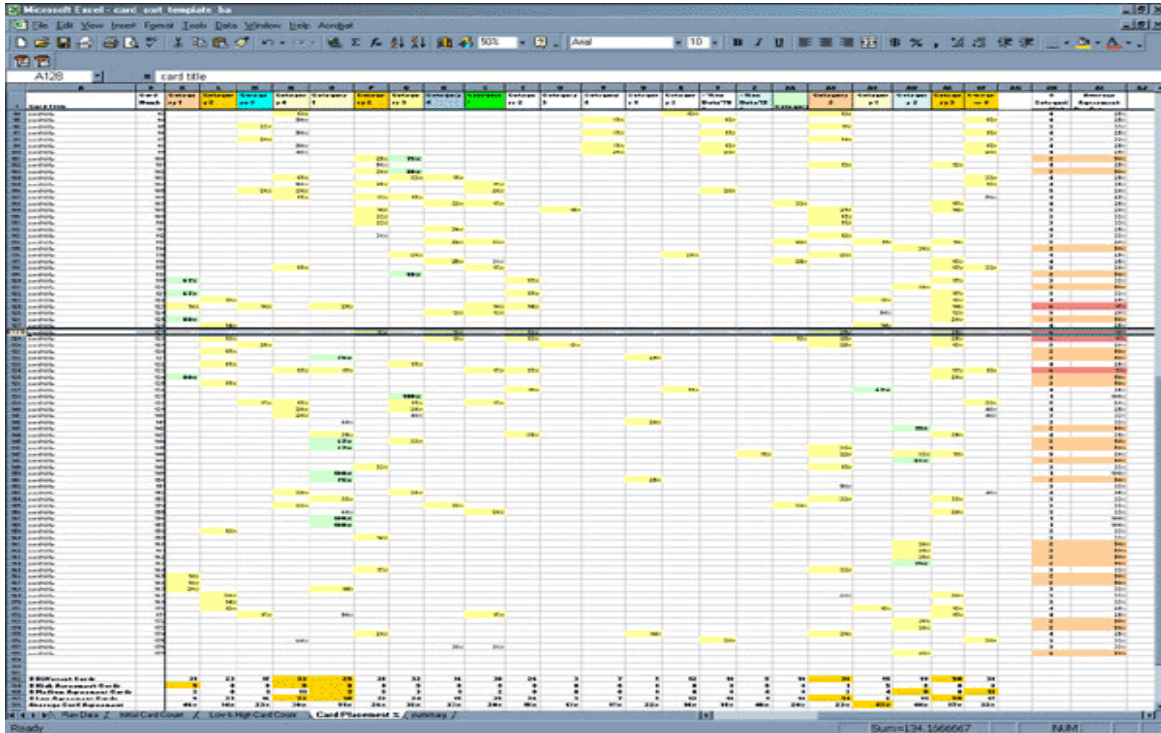


Figure 4. Card Sorting Template (Lamantia, 2003)

Lamantia (2003) outlined the steps in the analysis process which allowed the identification of “results showing: in which categories each card appears; how often a card appears in any given category; where cards appeared by percentage; the number of unique cards in a category; color coding to simplify interpretation; summaries of category contents” (para. 1). The researcher’s goal was to look for consistent underlying conceptual frameworks through the identification of patterns in the aggregate card sorts.

Based on the results of the spreadsheet analysis, the researcher identified a typology of five broad categories of institutional barriers to student persistence and completion:

Assumptions, Attitudes, Policies, Procedures, and Information Gaps. These categories serve as the organizational structure for the inventory that appears as one of the tools in the workbook in the following chapter. The findings of the topic normalization process and spreadsheet category agreement analysis are further discussed in Chapter Four.

CONCLUSION

The purpose of this chapter was to explain the research design, method, participants, and information analysis tools used in this study. The researcher used Card Sort methodology as a means of understanding how practitioners in the area of student success make sense of and categorize potential institutional barriers and inhibitors. Using topic normalization to identify common category labels amongst the practitioners provided the researcher a typology. The researcher used this typology to create the structure of the Inventory tool in the workbook found in Chapter Four, and within each section of the Inventory, the specific institutional audit questions. The methodology and practitioner statements from the Concept Card Deck were used to inform the creation of the Facilitator Guide and the Student Focus Group Protocol.

CHAPTER FOUR: INSTITUTIONAL WORKBOOK ON POTENTIAL BARRIERS OF STUDENT SUCCESS

INTRODUCTION

In this chapter the researcher presents the findings of the topic normalization process described in Chapter Three, as well as the product of this study: the three tools to assist institutions in identifying potential barriers to student success and initial action plans to address them.

FINDINGS

The topic normalization process described in Chapter Three revealed significant agreement among student success practitioners. The first round of topic normalization identified 12 categories. The researcher then used Lamantia's (2003) spreadsheet template to identify results showing in which categories each card appears and how often a card appears in any given category. The researcher's goal was to look for consistent underlying conceptual frameworks through the identification of patterns in the aggregate card sorts.

The spreadsheet template revealed that the 12 categories could be further reduced to five categories due to greater than 50% agreement of card placement when combined. Table 1—*Topic Normalization Summary* indicates in parentheses the categories that were combined,

along with an illustrative sample of some of the card statements that were put in that category by the majority of student success practitioners who completed the Card Sort Activity.

Table 1. *Topic Normalization Summary*

CATEGORIES	EXAMPLE CARD STATEMENTS
Assumptions (Institutional Beliefs)	Belief that “better” students will be retained; undecided students are academically unprepared; all students are technologically skilled; engaged students do not need support
Attitudes (Institutional Culture)	Lack of customer service attitude in key offices; staff unwilling to assist beyond job description; a high drop rate is a sign of rigor; unwilling to try new initiatives
Policies (Academic Policies) (Curricular Barriers)	Fees & fines; dropping students for nonpayment; retaining old GPAs; holds that prevent registration; developmental courses do not count towards degree; additional graduation requirements
Procedures (Student Support) (Advising/Scheduling)	Ineffective advisors; advising capacity not enough; high student to advisor ratio; schedules not designed for student convenience; most Gen Ed courses full by the time students register
Information Gaps (Communication)	Lack of communication; acronyms; lingo; withholding information; inconsistent communication methods; website set up to recruit but not inform

For each of those five categories that emerged from the topic normalization process and category placement percentage agreement, the researcher has generated the following operational definitions:

Assumptions – the emergent label from the practitioner sort for the category referring to beliefs held by those associated with an institution, or “what we think we know.”

Attitudes – the emergent label from the practitioner sort for the category referring to an institution’s cultural behaviors, or “how we feel.”

Policies – the emergent label from the practitioner sort for the category referring to institutional rules. Policies are further categorized into those relating to the institution at large, and those specifically related to curricula.

Procedures – the emergent label from the practitioner sort for the category referring to the ways institutions manage students, or “how to get things done.” Procedures are further categorized into those related to testing, advising, registration/placement, orientation, general student support, and scheduling.

Information Gaps – the emergent label from the practitioner sort for the category referring to insufficient institutional communication methods.

THE WORKBOOK

The researcher used the typology generated from the topic normalization and the agreement percentages found using Lamantia’s (2003) spreadsheet to inform the development of the three tools found in the workbook: an Inventory instrument to identify specific examples of potential barriers; a Facilitator Guide to conducting a campus audit of potential institutional barriers with faculty and staff; and a Focus Group protocol for capturing the student perspective on potential institutional barriers. As a whole, the three tools provide a student success practitioner with a variety of techniques for engaging an institution in identifying, prioritizing, and addressing impediments to persistence and completion.

The development of each tool within the workbook is first discussed in the body of the dissertation; then the workbook is presented as it would appear if it were to stand alone as a

product. The tools are written using less formal style and language than the body of the dissertation to further set it apart.

Connection to Methodology and Limitations

The card sort methodology and analysis was used to generate a typology that informed the creation of the three tools. However, as discussed in Chapter Three, the technique used to generate the sample statements produced results that are not intended to be comprehensive or representative of all potential barriers that students may encounter. Given the wide variety of institutional structures and the ways in which they address student needs, the researcher provides opportunities for customization of the tools as barriers emerge during the activities that are specific or unique to the particular institution.

Tool 1: Inventory of Potential Institutional Barriers

The information analysis used in this study identified a typology of five broad categories of institutional barriers: Assumptions, Attitudes, Policies, Procedures, and Information Gaps. Those categories serve as an organizational structure for the Inventory tool, and within each category the questions are presented in stages of student progression toward attainment of a credential. The Inventory questions were formed from the statements in the Concept Card Deck that were placed in a particular category by the highest percentage of practitioners participating in the Card Sort.

Why an Inventory Tool?

The development of the Inventory draws from the concept of organizational self-reporting and the use of self-report inventories in psychology in which the subject answers a series of questions about one's self or organizational (employer) behaviors. These methods are often associated with the concept of self-report bias (Donaldson & Grant-Vallone, 2002) in which "research participants want to respond in a way that makes them look as good as possible. Thus, they tend to under-report behaviors deemed inappropriate by researchers...and over-report behaviors viewed as appropriate" (p. 247).

In this case the Inventory is not being reported back to the organization, but is simply a way for the student success practitioner to collect and organize information that assists in identifying potential barriers. Jex and Britt (2014) write that, "because most of the items on organizational surveys are not highly sensitive or invasive, it is reasonable to assume that employees will probably respond truthfully, provided they believe their responses will be held in confidence" (p. 46). The researcher intends the absence of a formal reporting mechanism for the Inventory to enable a practitioner to be honest about the state of potential barriers at the institution. It remains up to the practitioner to take the results of the Inventory and determine what next steps the organization could and should take to begin addressing the potential barriers.

Tool 2: Facilitator Guide

An additional tool that can be used to identify institutional inhibitors is to engage the institution in learning about potential barriers through a group card sort. As discussed in

Chapter Three, the Card Sort study completed by the researcher combined individual student success practitioner perspectives to result in a Concept Card Deck of general potential institutional inhibitors. The Concept Card Deck can be used by a single interested individual to complete a card sorting activity based on personal experience. However, the researcher recommends using card sorting as the basis of a facilitated experiential learning activity to engage the wider campus constituency in identifying potential institutional barriers to student success.

Why Facilitated Group Activity?

Participating in what is essentially an experiential learning exercise will make it much more likely that the institution's constituents will arrive at a shared understanding of its potential barriers. Using the Concept Card Deck provides a prompt for relating to common issues. The acts of sorting the cards, categorizing the cards, defining category labels, and prioritizing the cards within the categories, in groups, necessitates deep conversations about the current state of the organization. Rees (2005) described some of the most common and important benefits of facilitation as, among others:

Group members are more motivated to support the decisions made; organizations can be flexible and produce results more quickly because people are committed to the decisions made; people realize that responsibility for implementing decisions lies with everyone; and people are encouraged to think and act for the overall good of the organization. (pp. 14-15)

Tool 3: Student Focus Group Protocol

As discussed in Chapter Three, the Card Sort study completed by the researcher provided a perspective on institutional barriers limited to that of administrative student success practitioners. While their perspectives allowed the researcher to identify a valuable first

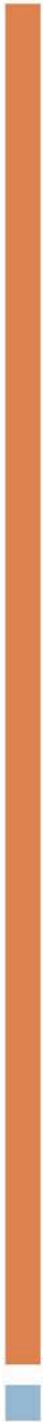
typology with which to categorize these barriers, it is important for institutions to seek students' perspectives in order to understand how students perceive their experience on campus. To understand more about the reasons students might not persist related to potential institutional barriers, the researcher recommends student focus groups and offers a protocol and sample script as a possible method to collect this information.

Depending on the needs of the institution, the student focus groups might be used in conjunction with the previously described guided facilitation activities. The results from the ranking and scoring of categories of potential barriers can be incorporated into the questions asked of students to create an institution-specific script. Before committing to a particular course of action or prioritizing specific barriers to address, an institution can investigate if students themselves also view the barriers in the same order of importance.

Why Student Focus Groups?

Focus groups can provide insight into how people think and provide a deeper understanding of the experiences being studied. Group discussion produces data and perceptions that would not be as accessible without the kinds of communication found in a group venue—hearing spoken experiences stimulates participants to share their own beliefs, opinions, and experiences. Lindlof and Taylor (2002) described this as a group effect where members engage in “a kind of ‘chaining’ or ‘cascading’ effect; talk links to, or tumbles out of, the topics and expressions preceding it” (p. 187). Engaging students in discussions about the potential barriers is an opportunity to gain deeper understanding of their perceptions and feelings toward the institution.

The protocol guide contained in the workbook draws on the recommendations, principles, and practices provided by Nagle and Williams (n.d.), Public Agenda and West Ed (n.d.), and the University of Wisconsin-Madison Office of Quality Improvement (2007).



HASSLES TO TASSELS: A WORKBOOK TO
EXAMINE POTENTIAL INSTITUTIONAL
BARRIERS TO STUDENT SUCCESS

AMBER R. HOLLOWAY, ED.D

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HASSLES TO TASSELS: A WORKBOOK TO EXAMINE POTENTIAL INSTITUTIONAL BARRIERS TO STUDENT SUCCESS

INTRODUCTION

Much of the research and literature pertaining to college student retention, graduation, and completion focuses on student behaviors and choices. While this perspective provides a clear focus for targeted programs and intervention initiatives with specific groups or individuals (such as early alert systems, student orientation, tutoring, supplemental instruction, etc.) it overlooks the possibility that an institution's policies, practices, and procedures may also inhibit students' progress and persistence. This workbook contains a set of three tools for use in examining potential institutional structural, procedural, and cultural inhibitors to student progress.

INTENDED AUDIENCE

Although there is no one person or office that can be wholly responsible for student success, institutions often designate an individual, committee, or office with the task of improving persistence and completion. Recognizing that each institution will have a different method or approach, this workbook is intended for those leading the effort. For example, it may be used by an individual Dean of Student Success to guide additional planning efforts, or by a Retention Committee to further engage the broader campus constituency. Each tool—the Inventory, the Facilitator Guide, and the Student Focus Group Protocol—can be used together or separately, depending on the culture, context, and needs of the institution. Suggestions are provided within the workbook for how the tools might be used together.

The involvement and support of institutional leadership is critical in pursuing this work. While much of the work will not require spending additional dollars, it will require spending large amounts of staff, faculty, administrator, and students' valuable time. To honor that time commitment, institutional leadership must be prepared to continue the work by supporting action plans or data analysis needs that emerge as a result of the activities and exercises.

TOOL 1: AN INVENTORY FOR STUDENT SUCCESS PRACTITIONERS TO IDENTIFY POTENTIAL INSTITUTIONAL BARRIERS

INTRODUCTION AND OVERVIEW

This inventory tool is designed to assist student success practitioners in a review of potential institutional barriers. The questions and prompts are intended to provoke consideration, discussion, and further exploration.

The tool is organized into sections representative of five key categories of potential institutional barriers to student success. In each section, questions and prompts are generally presented in the order in which a student might encounter such barriers while progressing through an institution. The five categories, and questions within each, are drawn from research conducted with student success practitioners.

The Inventory is lengthy and is not intended to be completed in one sitting; it is anticipated that the student success practitioner may need to seek additional information from other offices or groups to effectively complete the tool. Alternatively, if an institution has a designated committee to oversee issues related to student success, that committee might assign the relevant parts of the Inventory to individual members for further exploration over a specific period of time.

DIRECTIONS

Read and reflect on each question, then write your initial answers and thoughts in the space provided.

At the end of each section, space is provided to generate an initial list of potential action steps, sources of data to locate and analyze, or conversations to start at your institution.

PART 1. ASSUMPTIONS: BELIEFS HELD BY THOSE ASSOCIATED WITH AN INSTITUTION. REFLECT ON THE FOLLOWING QUESTIONS IN RELATION TO YOUR INSTITUTION'S ASSUMPTIONS:

1. What services are available to students who do not fit into categories such as "underprepared"? Does the institution seem to assume that highly prepared students do not need support services and are more likely to be retained?

2. How are transfer students served? Is it generally assumed that students who transfer in from local, less "prestigious" institutions will not do as well at this institution?

3. *Is it commonly assumed or believed that the admissions/enrollment/recruitment office is responsible for the institution's retention/persistence/completion/graduation rates? What groups, committees, and/or individuals would be designated as responsible?*

4. *How are student athletes served? Does the institution seem to assume that student athletes have a built-in support system and are likely to be retained?*

5. *When students identify that they do not "fit in" or are unhappy, what is the response? Does the institution seem to believe that if students are not happy here, they should transfer?*

6. *Is the institution recruiting particular "types" of students? How do the recruiting materials depict the institution, the student body, the campus culture? Are those images accurate?*

Potential Next Steps, Data Sources, and Conversations:

1. _____

2. _____

3. _____

PART 2. ATTITUDES: THE CULTURAL BEHAVIORS OF AN INSTITUTION; HOW THOSE ASSOCIATED WITH AN INSTITUTION “FEEL” ABOUT STUDENTS. REFLECT ON THE FOLLOWING QUESTIONS IN RELATION TO YOUR INSTITUTION’S ATTITUDES:

1. Does this institution have a “customer service” culture? How might constituents describe the culture they encounter when asking for services?

2. Could this institution be described as “student-focused”? Think about a recent major decision. Were student needs considered the first priority?

3. What does the institution’s mission statement say about students? Are they mentioned?

4. What typically happens when a prospective student calls or arrives at the “wrong” office? Are employees willing to answer questions and make sure the student gets to the correct office?

5. Is this organization hesitant to try new initiatives because of past failures? What dialogue is overheard when a new program or grant is considered or announced?

6. What faculty and staff development opportunities exist related to providing service to students?

7. How often have you overheard at this institution that some students have the “right to fail”? Is this attitude commonly discussed or understood?

8. Are some faculty routinely known to tell students that some of them will have dropped by the end of the semester? What might that imply?

9. How knowledgeable are advisors, faculty, and staff about working with students from diverse cultural and social backgrounds? How might students answer this question?

10. What rewards, incentives, etc. does the institution offer faculty to teach first-year students? If none, what effect might that have if offered in the future?

Potential Next Steps, Data Sources, and Conversations:

1. _____

2. _____

3. _____

PART 3. POLICIES: AN INSTITUTION'S RULES AND REGULATIONS. POLICIES ARE FURTHER CATEGORIZED INTO THOSE RELATING TO THE INSTITUTION AT LARGE, AND THOSE SPECIFICALLY RELATED TO CURRICULA. REFLECT ON THE FOLLOWING QUESTIONS IN RELATION TO YOUR INSTITUTION'S POLICIES:

Institutional Policies:

1. Does this institution retain the GPA of a student's previous attempt at college? If so, why? From how many years prior?

2. In what semester can a student apply to graduate? How many applications for graduation are denied? Do you know why? What went wrong?

3. *If a student cannot apply to graduate until the final semester, but the application is denied, what recourse does the student have to finish on time?*

4. *Does this institution charge a fee to graduate? If so, why?*

5. *How many students apply to graduate, are eligible, but do not pay the fee? What is the “cost” of the fee to the institution; what impact could it have on the graduation rate if the fee did not exist and those students completed?*

Potential Next Steps, Data Sources, and Conversations:

1. _____

2. _____

3. _____

Curricular Policies:

1. *How easily are credits accepted from institutions within our (county, region, state) system?*

2. *Are institutional requirements for degree credit hours in alignment with state requirements? (Example: state requires 72 hours for AA degree; institution requires 76)*

3. Can programs and/or majors set their own GPA requirements. If so, why? Are they necessary? What options do students have if not admitted to a certain program?

4. What is the outcome for students denied admission to a particular program? Do they withdraw, transfer, or take additional courses?

5. How often do courses that are pre-requisites for certain programs NOT count toward other degrees/programs?

6. What happens if a student fails a course in a curriculum that has since been revised? Does the new program require the student to start over?

7. Does the institution have add-on requirements, such as a physical education course, a portfolio, etc. that students frequently do not complete? If so, are they necessary?

Potential Next Steps, Data Sources, and Conversations:

1. _____

2. _____

3. _____

PART 4. PROCEDURES: THE WAYS INSTITUTIONS MANAGE STUDENTS; OR, “HOW TO GET THINGS DONE.” PROCEDURES ARE FURTHER CATEGORIZED INTO THOSE RELATED TO TESTING, ADVISING, REGISTRATION/PLACEMENT, ORIENTATION, GENERAL STUDENT SUPPORT, AND SCHEDULING. REFLECT ON THE FOLLOWING QUESTIONS IN RELATION TO YOUR INSTITUTION’S PROCEDURES:

Testing Procedures:

1. *How and when does the institution assess students’ readiness to take online courses before allowing enrollment in such courses?*

2. *Are tools provided to assist students in preparing for placement tests? If so, are they useful?*

3. *Are student placement test results accepted from within the (county/state/etc.) system, or does the institution require retesting before allowing students to register?*

4. *How often and at what times is placement testing offered? How often do students sign up for placement testing but not show up? Does anyone call or otherwise contact them to reschedule or find out why?*

5. *How accurately are students placed into courses? Can students override their placements, and if so, what are the outcomes?*

Potential Next Steps, Data Sources, and Conversations:

1. _____

2. _____

3. _____

Advising Procedures:

1. Do faculty advise students in the major? If so, how is the advising evaluated? Is the information provided consistent with that provided in general advising?

2. Does the institution evaluate which courses have the highest waitlists? If so, what can be learned from that information? Are those the most popular courses? Or are they courses that students need?

3. Have "gatekeeper" courses been identified? Those with the highest DFW rates? If so, are students advised accordingly?

4. Can students change majors on their own initiative? If so, what benefits and challenges does this practice present?

5. How often do students change their majors? Are patterns detectable? After taking certain courses? How often does a change in major lead to an eventual withdrawal?

6. What types of institutional holds are in place that can prevent registration? Why? Do we analyze how many students do not return to our institution because of these holds?

7. What is the process for obtaining a degree audit? How do students know how to initiate the process or whom to ask?

Registration/Placement Procedures:

1. *Have models of accelerated developmental education been implemented to assist students in moving through these courses? If so, are they effective?*

2. *Can students wait and take general education requirements after other courses required in the major? Do they withdraw without ever taking those courses?*

3. *Can students register after classes have already begun? If so, how late into the semester?*

4. *What is the outcome of students allowed to register after classes have already begun compared to students who start class on time. What might be the initial cost to the institution if students could not register late? And what is the cost to the institution of the unsuccessful outcomes?*

Potential Next Steps, Data Sources, and Conversations:

1. _____

2. _____

3. _____

Orientation Procedures:

1. Does the institution offer orientation sessions for specific student populations such as international, first generation, veterans, transfer, etc.? Compare student outcomes within significant populations—are those who attend orientation more successful than those who do not? Should orientation be mandatory?

2. How is orientation offered? In one day, one week? Throughout the semester? Why was the current model chosen? Is it effective?

3. Does the institution offer online orientation? If so, compare the success of online orientation with traditional orientation. What can be learned from this information?

Potential Next Steps, Data Sources, and Conversations:

1. _____

2. _____

3. _____

Student Support Procedures:

1. Does the institution offer a first-year experience course? If so, is it required for all students, regardless of college readiness?

2. What percentage of first semester, first year students are enrolled in a class taught by a senior, full-time faculty member? Conversely, what percentage is taught by part-time, adjunct, teaching assistants, etc.?

3. *Of the ten courses most likely to be taken by first-year students, what percentage of those course sections are taught by senior full-time faculty members?*

4. *What is the average class size for first-term students?*

5. *How many first year students send out transcripts at the end of their first semester or in their second semester? What can be learned from this information?*

6. *What programs and support structures are in place for second, third-year, etc. students?*

7. *What accommodations, programs, and/or resources are in place for part-time students? Working students? Parenting students?*

8. *How are struggling students identified? What support is available to them?*

Potential Next Steps, Data Sources, and Conversations:

1. _____

2. _____

3. _____

Scheduling Procedures:

1. *Are General Education courses often full by the time new first year students register? If true of this institution, what other options do students have?*

2. *Are required classes offered in the fall and spring each year, or only in fall/spring/alternate years?*

3. *Do programs have multiple start options, or do they only begin in the fall?*

4. *Are there courses available for students who register late in the registration process? Does the institution have a process for adding course to meet increased demand during the registration process?*

4. *How is the schedule created each year? How are decisions made about which courses will be taught on which days? Is it based on student need or faculty choice?*

Potential Next Steps, Data Sources, and Conversations:

1. _____

2. _____

3. _____

PART 5. INFORMATION GAPS: THE COMMUNICATION, OR LACK THEREOF, OF INFORMATION TO STUDENTS, FACULTY, AND STAFF. REFLECT ON THE FOLLOWING QUESTIONS IN RELATION TO YOUR INSTITUTION'S POTENTIAL INFORMATION GAPS:

1. *How comprehensive is the orientation program for new staff? For faculty? Adjuncts?*

2. *How does the institution communicate with students? Are multiple methods used—paper, email, text, etc.?*

3. *Is the website designed to provide ongoing information or to recruit? How long does it take current students to find information?*

4. *Is information on the website current? Perform a web-based search for your institution's course catalog, student handbook, and other important documents. Check the first few links to see if out-of-date versions of those documents are still showing up in the search results.*

Potential Next Steps, Data Sources, and Conversations:

1. _____

2. _____

3. _____

SUMMARY:

Once the student success practitioner, and/or committee members, has determined the relevant information has been gathered and the Inventory is complete, review the “Potential Next Steps, Data Sources, and Conversations” box within each part of the Inventory. Are there any obvious and immediate items that could be easily addressed? Does one particular section emerge as more important? How do you know?

If the institution intends to use additional tools in the workbook, the information gathered in the Inventory can be validated by added perspectives prior to taking action.

TOOL 2: A FACILITATOR'S GUIDE TO ENGAGING THE CAMPUS CONSTITUENCY IN IDENTIFYING POTENTIAL INSTITUTIONAL BARRIERS

INTRODUCTION AND OVERVIEW

The purpose of this tool is to guide the facilitator in designing and implementing a series of activities to engage the campus constituency in identifying potential institutional barriers to student success. While valuable information can be obtained from surveys and other methods, participating in an interactive exercise will make it much more likely that the institution's constituents will arrive at a shared understanding of its potential barriers. Rather than assigning or assuming that responsibility for student persistence and completion rests with a particular person, office, or committee, participants will have shared ownership of the potential barriers.

The facilitation is based on card sorting, a method to understand people's mental representations about a concept, idea, or topic. In a card sort, participants are given cards to sort into different groups, then name the groups of cards based on the topic represented by that group. An initial Concept Card Deck is provided in the form of 120 statements about student barriers (*see Appendix*), which can be printed on labels and affixed to index cards, one per card.

The 120 statements of potential institutional barriers used in the Concept Card Deck is intended to represent a wide variety of institutions but should not be considered comprehensive. It is important to recognize each institution has its own unique characteristics driven by mission, location, size, etc. For example, some statements in the Concept Card Deck may not apply to a two-year institution (on-campus housing, dining hall, shuttle service etc.).

The facilitator is encouraged to determine if the institution should use the entire Concept Card Deck, if the Concept Card Deck should be culled to fit the institution, or if the institution should engage in the creation of additional statements to formulate its own Card Deck. If the determination is made that the institution should create its own Card Deck, this will involve a multi-day process. The activities in this guide are presented as a series of options assuming the multi-day process. The facilitator may skip to Activity 2 once a final Card Deck has been created or the decision is made to use the Concept Card Deck provided.

For the purposes of these activities, it is assumed that the facilitator is an individual knowledgeable about the institution and involved with persistence and completion efforts. It is not necessary to bring in outside facilitation.

ACTIVITY 1: CREATING AN INSTITUTIONAL CARD DECK*

** If using existing or modified Concept Card Deck, Skip Activity 1*

Objectives:

- Participants will generate a stack of cards, each listing a potential institutional barrier to student success

Determine Participants:

- This activity can be done with a large group; suitable for in-service, all-staff, faculty-staff workshops, etc.

Planning and Materials Needed:

- Create or arrange for participant name tags
- Arrange round tables for groups of 6-10, depending on space constraints
- Order/obtain LCD projector
- Prepare table supplies: Index cards on tables, 3-5 per participant, and pens

Directions for Activity:

- Give participants an overview of the background and purpose of today's activity. This can be done through a short presentation that the root causes of student attrition typically point to a deficit in the student, but you are asking the participants to think about the possibility that institutional practices may contribute to the problem.
- Provide examples to prompt participants' thinking: do you have holds that prevent registration? Fees to graduate? Out of date materials on the website?
- Ask participants to, at their tables, discuss and identify potential barriers they might have experienced or heard of, at this institution. Write a description of the barrier on an index card, but only one barrier per card.
- Remind participants when half the allotted time remains
- When the allotted time has elapsed, bring the activity to a close and describe next steps (What information or activities will follow?).
- Ask participants to leave the cards on the table; the facilitator should collect all the cards.

Directions for Facilitator (Post-Activity)

- Review the participant cards and sort quickly into like piles. Compare the card statements to the 120 statements in the Concept Card Deck and determine which cards contain unique ideas that should replace and/or be added to those in the Concept Card Deck.
- The researcher recommends at least 50 but no more than 100 cards in the resulting institutional deck.

SAMPLE AGENDA FOR ACTIVITY 1

Agenda Item	Suggested Content	Suggested Time
Opening Remarks	Welcome, review agenda	5 minutes
Institutional Barriers	Ppt. presentation; provide examples of barriers	10-15 minutes
Activity Overview	Review instructions for generating barrier statements	5 minutes
Table Activity	Tables discuss and generate barrier statements	20 minutes
Conclusion	Thank participants and state next steps	5 minutes

ACTIVITY 2: INSTITUTIONAL CARD SORT AND CATEGORIES

Objective:

- The deck of cards is sorted into at least five but not more than ten categories of potential barriers at this institution.

Determine Participants:

- One to three participants at the institution should complete this activity (the facilitator for Activities 1, 3, & 4 can be one of the participants)
- The participants should be administrators and/or faculty involved in persistence and completion initiatives, programming, committees, etc.

Planning and Materials Needed:

- One Card Deck
- Sticky notes
- Markers

Directions:

- Read the cards, looking for major themes that you can put into categories
- Sort the cards into no more than 10 categories/groups and give each category/group whatever label you believe best represents the grouping
- Each card may be placed in only one category
- Each category should have an equal number of cards
- On the table below, record the 10 labels you created, along with the numbers printed on the cards you placed into that category

LABEL TEMPLATE FOR ACTIVITY 2

Label for Category/Grouping	Numbers on Cards Placed in Category

ACTIVITY 3: PRIORITIZING INSTITUTIONAL BARRIERS (RANKING) *

**Can be completed in sequence with Activity 4*

Objective:

- Participants will rank the cards (barriers) in each category in order of importance

Determine Participants:

- This activity can be done with a large group; suitable for in-service, all-staff, faculty-staff workshops, etc.

Planning and Materials Needed:

- Create or arrange for participant name tags
- Arrange round tables for groups of 5-8, depending on space constraints
- Assign groups to ensure diverse departmental representation at each table
- Prepare Concept Card Decks: one per table
 - Create decks of cards pre-sorted into the categories that resulted from Activity 2
- Worksheet to record results

Directions:

- Give participants an overview of the background and purpose of today's activity.
"Each table has a deck of cards containing statements of possible barriers to student success. The barriers are sorted into categories. Today we are going to ask you to think about which of these are the biggest barriers at our institution; which are the most important to address?"
- Ask participants to, at their tables, rank the cards in each category in order of importance, with 1 being the most important (1 to 5 if five cards in each category, 1 to 10 if ten cards in each category, etc. depending on the results from Activities 1 and 2).
- Record results on the worksheet provided (create a template to fit results of card deck; example below).

Category _____

1. _____

2. _____

3. _____

4. _____

5. _____

ACTIVITY 4: PRIORITIZING INSTITUTIONAL BARRIERS (SCORING) *

**Can be completed in sequence with Activity 3*

Objective:

- Participants will prioritize the categories of barriers by scoring each barrier and totaling the score for each category.

Determine Participants:

- This activity can be done with a large group; suitable for in-service, all-staff, faculty-staff workshops, etc.
- This activity can be done with the same group that completes Activity 3

Planning and Materials Needed: (same as Activity 3 if continuing)

- Create or arrange for participant name tags
- Arrange round tables for groups of 5-8, depending on space constraints
- Assign groups to ensure diverse departmental representation at each table
- Prepare Concept Card Decks: one per table
 - Create decks of cards pre-sorted into the categories that resulted from Activity 2
- Worksheet to record results

Directions:

- Give participants an overview of the background and purpose of today's activity. (Not necessary if continuing from Activity 3)

"Each table has a deck of cards containing statements of possible barriers to student success. The barriers are sorted into categories. Today we are going to ask you to think about which of these are the biggest barriers at our institution; which are the most important to address?"

- Ask participants to, as a group, separately score each card (barrier) in each category, using the following scale:

- 1: not at all an issue at our institution
- 2: rarely an issue at our institution
- 3: sometimes an issue at our institution
- 4: frequently an issue
- 5: always an issue

- Participants should record results on the worksheet provided (create a template to fit results of card deck; example below).

Category _____

Barrier _____ Score _____

Barrier _____ Score _____

Barrier _____ Score _____

Barrier _____ Score _____

Barrier _____ Score _____

Total: _____

- Engage the participants in a discussion about which categories received the highest score, and which barriers received the highest scores.
- Describe the next steps the institution plans to take.

Directions for Facilitator (Post-Activity 3 and/or 4)

- Collect the worksheets and compare and/or aggregate, looking for obvious agreement through scoring or ranking.
- Institutional administrators should decide in advance what action steps will follow and can be communicated to the campus constituents.

SUMMARY

The information compiled from ranking and/or scoring the categories and cards can be used to prioritize which barriers the institution can and should address. It can be linked to strategic planning, used by a retention or student success committee, and/or developed into specific goals or action steps. It can also be further explored for validity by incorporating the barriers into the questions used in a student focus group protocol as described in Tool 3 in the following section.

TOOL 3: A FOCUS GROUP PROTOCOL TO GATHER STUDENT PERSPECTIVES ON POTENTIAL INSTITUTIONAL BARRIERS

INTRODUCTION AND OVERVIEW

The purpose of this document is to provide a protocol for institutions to use in gathering student perspectives on potential institutional barriers to student success. Guidance is provided on the major steps in the process of conducting student focus groups, and a sample script is offered to assist the institution. The institution should tailor the script to fit its characteristics, needs, and focus group(s).

GUIDANCE AND CONSIDERATIONS

1. Identify the Desired Participants

Who should participate in the focus groups? The answer to this question depends on the type of information sought. If the institution is focusing on identifying barriers to first-year student success, it may want to limit the focus group to first-year students. On the other hand, if the institution is seeking to learn about any and all barriers, it may want to hold focus groups for students at any level, and possibly alumni. If barriers for special populations (low-income; older-than-average; parenting students, etc.) are of interest to explore whether some barriers might affect certain groups more than others, the focus groups may need to be limited to those populations.

2. Determine the Number of Focus Groups

The number of focus groups to hold will also depend on the type of information sought—if a special population is the target, and that population is small, two focus groups might be sufficient. If the information sought is from the larger student body, three to five focus groups may be needed to ensure sufficient diversity and representation from all student populations.

3. Identify a Facilitator

Institutional leaders should discuss and decided whether to administer the focus group internally or bring in an external organization. Students should feel comfortable speaking with the moderator/facilitator and have a high level of rapport and trust.

4. Determine Logistical Needs

When and where will the focus groups take place? Be sure to consider students' schedules, the comfort of the space, accessibility of the location, etc. How many people should participate in the focus groups? To ensure everyone has the opportunity to share and participate, it is recommended that focus groups not exceed 10-12 participants. In addition, the session should be recorded or a staff member be designated as a note-taker so the moderator/facilitator can focus on the group.

5. Write the Focus Group Questions

A sample script is provided in the following section as guidance for developing questions. The script should be adapted to fit the institutional setting, purpose, and the participants. Keep in mind that the facilitator will need to follow up with additional probing questions that fit the context of the students' remarks, so build in additional time to go "off-script."

6. Recruit/Invite Participants

The invitation should describe the purpose of the focus group, the date/time/location, and how responses will be recorded. Coordinate with the relevant institutional IRB or research office to ensure the language of the invitation meets any requirements regarding the collection of data and confidentiality. If allowed, consider offering an incentive such as a gift card and provide refreshments for the participants—be sure to mention these in the invitation.

7. Hold the Focus Group(s)

During the focus groups the facilitator should be free to interact with the students and should not take notes. The most accurate information will be gathered by using a voice recorder, but if nonverbal communication is of interest, an unobtrusive note-taker is needed.

8. Debrief the Focus Group

If possible, debrief the facilitator(s) immediately following the focus group, with someone who was not part of the group. Capture general impressions of the groups, ideas about the main theme that might have emerged, surprising elements of the conversation, and any questions the facilitator would have liked to ask but did not due to time constraints.

9. Analyze the Results

If the sessions are recorded, a transcription service may be the most efficient way to get the results in a usable format. The data will need to be analyzed through a process of coding and sorting by looking for patterns and trends. This can be done with computer software or by hand; if available, consider coordinating with the institutional research office to identify resources to complete this task.

10. Document and Share the Results

Write a summary or report of what is learned, documenting whether the findings confirmed assumptions or identified new issues. What was the most commonly discussed barrier among the students? What concrete changes did they identify that would help students succeed? What recommendations can be made for mitigating or eliminating institutional barriers?

It is also recommended that the focus group process itself be evaluated. What should be changed for future focus groups? What worked well and what did not?

SAMPLE SCRIPT FOR STUDENT FOCUS GROUP PROTOCOL

INTRODUCTION OF MODERATOR AND GUIDELINES:

Thank you for being here today. We are excited to learn from you and think what you have to tell us will be very important. We are working on a project to identify the ways that our institution might be creating barriers to student success and we think students could tell us about some of those barriers. Our discussion will take about ____ (minutes, hours).

There are no wrong answers to any of the questions. We are interested in hearing all student perspectives. We are recording our conversation (or disclose the note-taker) so we can accurately present your ideas and thoughts, but we will not quote any student by name. The information we collect today will be shared with (describe the next steps you plan to take).

We have a few guidelines to agree on as a group before we begin. One person should speak at a time. Everyone will have a chance to speak; if you have not had an opportunity, I may call on you. Please put away your cell phones. Are there any additional guidelines the group would like to add?

There are some terms we'll be using today that we want to make sure everyone understands and we can agree on the meaning (Depending on the focus group, you may need to define "student success," "retention," etc.). Does anyone have any questions before we begin?

WARM-UP:

Let's start by introducing ourselves. Tell us your name, where you're from, and why you decided to go to college. (Pick one person to start and then randomly call on others to demonstrate that participants do not need to go in order when answering questions. This exercise also allows each participant to "practice" speaking aloud and starts to create the group dynamics.)

SAMPLE QUESTIONS:

1. Tell us about the first time you came to campus—what were your first impressions?

(Listen for stories with a negative first impression, use additional probing questions to follow up.)

Moderator follow-up: What might have made that first experience better?

2. Let's talk about some of those first experiences. How many of you (show of hands) took placement tests here? What was that process like for you?

3. Tell us about registration. What was the process like for you the first time? Did you get the classes you needed or wanted?

4. *How many of you have talked to an adviser or counselor? Tell us more about that experience.*

Moderator follow-up: *Did others have a similar experience?*

5. *Tell us about your first week. What surprised you the most about college? What were you comfortable with?*

6. *Did you take a first-year or first-time student orientation course? In what ways was it useful or not? Is there anything you didn't learn in the course that you know now, that would have been helpful? If you were going to design the course, what would you include?*

7. *Now that you have been through one semester (or a few, depending on the group) how do you decide which courses to take?*

8. *How many of you have decided on a certificate or degree you are working on? How did you decide?*

9. *Sometimes students stop out or withdraw before completing a degree. What are some reasons you think that happens?*

(You may hear many reasons related to lack of finances, family or work commitments, etc. These are valid reasons, but they are not barriers created or exacerbated by the institution. As the facilitator, you may need to validate these reasons while reminding the group that they are here because the institution is interested in learning about barriers it might be creating, such as not being able to get the classes they want, or not being able to find parking, or not being able to get into a program or degree, etc. If institutional barriers are mentioned, ask if others have experienced the same.)

Moderator follow-up: *Is there anything the institution can do to help students facing those challenges?*

10. *Have any of you ever broken a college rule you didn't know about, or gotten a fine or hold on your record? Tell us more about that. What did you have to do to remove it and how long did that take?*

11. *Have you ever felt like you needed extra help but didn't know where or how to find it? What happened? Where did you look for information or whom did you ask?*

12. *How do you feel about the student support services (or the specific term used at the institution; may need to be defined) at this institution? What has been your best and worst experience so far?*

13. *If you don't use student support services, why not? What keeps students from using support services?*

14. Sometimes there are ways of getting around rules and requirements, or ways of doing things faster, called “hacks.” Have any of you developed any college hacks you would like to share with the group? What rule or requirement are you hacking?

(Listen for stories that relate to institutional policies or procedures and probe further.)

15. Tell us about your best and worst experience with a faculty or staff member.

(If students seem hesitant, explain that they don’t have to give names, and remind them of confidentiality—no statement will be attributed to individuals. But do probe for relevant details—what class, what office or department, etc.)

16. With whom do you feel you have made the strongest connections with on campus? What helped make those connections?

17. What one or two things could this institution do differently that would help students succeed?

18. Are all of you returning next semester? If not, why? Could the institution have done anything differently to make you want to stay?

19. Closing questions: If you could change one thing about this institution, what would it be and why?

CLOSING STATEMENTS

Thank you all so much for sharing your thoughts and experiences with us today. I will be sharing this information with _____ and _____ (explain the next steps as clearly as possible) ...

SUMMARY

At the conclusion of the focus groups, using the information provided in the introduction and guidelines of this tool, the facilitator should be debriefed to capture any additional information, and the results analyzed. It is also recommended that the focus group process itself be evaluated for lessons learned and future considerations. Ideally a written report will be produced and shared with the campus community, outlining, for example, if the findings confirmed assumptions or identified new issues, and the next steps the institution will take to address the barriers perceived by students.

CONCLUSION

It is important to keep in mind that simply using one or all of the three tools in this workbook will not be enough to improve an institution's persistence and completion rates. As with many reflective exercises and processes, an institution must make a commitment to take what is learned about its potential barriers from the Inventory, the facilitated activities with the concept cards, and/or conducting a student focus group, and then create an action plan. The tools are an indicator of potential areas of concern—further work is required to determine the extent to which a barrier might have a negative impact on student success.

While the three tools are intended for use by practitioners seeking to drive change and lead improvement efforts related to student success outcomes, there is a clear link to larger and systematic institutional improvement and strategic planning efforts that may be underway. There may be upcoming events, such as an accreditation review or the appointment of a new leadership team, that could be informed by the institutional conditions and characteristics identified in the Inventory, the Facilitated card sorting activities, and/or the Student Focus Groups.

APPENDIX: CONCEPT CARD DECK

120. Faculty not returning graded material promptly or with feedback.

1. Dropping students for nonpayment

2. Previous unsuccessful initiatives make people unwilling to try something that is perceived to have failed in the past.

3. Curricula policies with multiple if/then contingencies that are difficult to understand

4. Inflexible policies and deadlines

5. Many resources are set up for full-time students not part-time students

6. Placing incoming first semester students in difficult science courses taught by more rigid professors

7. Schedules designed for faculty convenience, not student convenience.

8. Faculty who refuse to collaborate with other services (tutoring, writing center, etc.)

9. Lack of customer service attitude in key offices

10. Assuming that all faculty are effective advisors.

11. Artificially high GPA requirements for programs that don't require high GPAs to be successful

12. Faculty don't respond to emails

13. Remedial classes are only offered in person, during the day, 4 days per week

14. Developmental courses don't count towards degree

15. There is a comprehensive first-year experience program and lots of support for first year students, nothing for sophomores

16. Programs that admit students only one time in calendar year (creating waiting lists)

17. If a student fails a course in a curriculum that has been revised, they need to start over under the new program.

18. Withholding information that could save students time or money.

19. Fees to graduate even if you are not participating in the graduation ceremony

20. Different colleges at the institution have different general education requirements making it difficult to transfer.

21. Too much information at orientation

22. If a student stops out, the student is withdrawn from the program & institution. Students must reapply for admission to the institution to return.

23. Required physical education course for graduation

24. Admissions process is too complicated for international students	25. Assuming adult students can navigate the institution on their own	26. Allowing students to take online courses without consideration of academic readiness.
27. The belief that undecided students are academically underprepared	28. Satisfactory Academic Progress (SAP) may be mathematically impossible for some students.	29. Course offerings based on what faculty like to teach and not what courses students need to take.
30. Lack of proactive interventions for struggling students	31. Adjunct and new faculty don't always know the institution well enough to be able to answer student questions	32. First year experience course serves as a gatekeeper.
33. Retaining GPAs from a student's previous attempt at college which might have been years ago.	34. Limited faculty office hours make it difficult for students to meet with them	35. Multi-stop registration
36. Computer systems allow students in developmental education to take any other courses they want, so students who can't read at a college level can enroll in a reading intensive	37. Students can change majors without talking with their advisor.	38. Rule that students who are not on campus for a semester lose scholarships (including study abroad students).
39. Lack of direct knowledge about how to work with students from diverse cultural and social backgrounds	40. Admitting students we are unprepared to support.	41. Institutions use inconsistent methods to contact students—mail, email, text, etc.
42. Belief that highly prepared students encounter no barriers and all will be retained	43. Lack of orientation and/or help for specific student populations such as international, first generation, veterans, transfer, etc.	44. Residence hall capacity limits available housing for students
45. Too many policies set on financial considerations rather than student needs	46. Faculty believe that a percentage of students will drop out	47. We forget to make our institutions about our students.
48. Forms and processes are too complex for students and families to understand.	49. High student to advisor ratio	50. Required classes that are Fall only/Spring only/or alternate year offerings

51. The worst teachers have the smallest classes (after students drop) and are rewarded by having less grading to do because they have fewer students.	52. Paired courses make it difficult for students to create a schedule	53. Low faculty participation in early alert initiatives
54. Institution not forthcoming about information that would help students.	55. Faculty tenure and promotion requirements are in conflict with the focus on student success	56. Students can only begin certain programs in the fall.
57. Limited enrollment in courses prerequisite to major requirements	58. The assumption that students who take courses at local, less prestigious institutions do not do as well in our courses.	59. Lack of feedback/reinforcement / answers - slow response to students (phone calls, emails, follow up)
60. Faculty tell students that some of them will have dropped by end of semester.	61. Believing that all of our students are technologically skilled.	62. Not enough help for students in the middle (not designated special populations and not top performing)
63. Unwelcoming campus culture	64. Siloed decision-making, e.g. academic standards sets a new policy, registrar enforces it, faculty and advisors were not consulted about impact on student success	65. Campus shuttle service doesn't meet the needs of students
66. Late admits wind up in the same residence hall and the same classes.	67. Only one instructor for gatekeeper courses--Anatomy, Chemistry, etc. with high Drop/Fail/Withdraw rates	68. Website is set up to recruit potential students but not to inform current students
69. Assumption that students can master the intricacies of our website with little guidance	70. Using guidelines as penalties, not learning opportunities; i.e. failing students for plagiarizing instead of helping them understand what it is.	71. Financial Aid counselors believe that "All students are trying to game the system"
72. Advising capacity not enough to meet needs	73. A lot of fees seem like they are fines	74. Unwillingness of staff to assist students beyond their specific job description.
75. Procedures that "punish" students but are framed as "tough love"	76. Critical courses scheduled in conflicting/overlapping time slots	77. Students often save the general education requirements for last and then drop out without degree

78. Residence life seems more interested in catching students breaking rules that helping them be good citizens	79. Turning away students who show up late for assessment tests	80. Students have to take many specific courses before they can be admitted to a major (making it difficult to change majors).
81. Condensed program schedule means even a single legitimate absence due to illness results in dropping the course	82. Fighting for and defending territory between different offices all professing to support student success.	83. Assuming that the only way students learn is if we lecture at them.
84. GPA thresholds to take key courses in major	85. Math requirements in programs that don't require that level of quantitative ability	86. Most Gen Ed classes are full by the time first year students register.
87. Requirements make it hard to transfer into institution	88. Grade quotas (number of A's, B's, C's, D's, F's.)	89. Complex rules related to double dipping in general education courses.
90. The best faculty on campus seldom teach first year students.	91. Lack of step by step instructions for students to follow until graduation	92. Belief that our issues will be resolved if we raise admissions standards.
93. Community college makes co-enrolled university students do all assessments—as if straight out of high school—in order to register.	94. Lack of fallback options for students not admitted to their programs.	95. Expecting a high failure rate in our developmental math classes
96. Lack of advising to make sure students are not taking too many courses/unnecessary courses/courses that won't transfer.	97. If student isn't happy, they should leave (rather than explore why)	98. Believing that a high drop rate is a sign of instructor/course/program/college rigor
99. Administrative processes and sequences are unclear to students	100. Having to declare a major during the first semester.	101. Additional graduation requirements, such as assessment portfolios
102. Trying to be accommodating by allowing new to students to register and begin classes as late as second week of semester, even though these students rarely succeed.	103. Treating first-generation/blue collar students as lacking motivation.	104. Failing students who miss 2 clinical days no matter why they missed class (ie illness).

<p>105. Blaming admissions for "poor quality" students</p>	<p>106. No cars allowed on campus so students feel trapped.</p>	<p>107. Admitting significantly more students than will be able to enroll in specific majors because of enrollment limits</p>
<p>108. Each campus sets their own policies creating inconsistency for the students</p>	<p>109. Lack of general knowledge about rules and policies. Student often get the run around when looking for the right answer.</p>	<p>110. The view that if students are in sports, they will stay in school.</p>
<p>111. The perception that we do not need to please students or meet students needs.</p>	<p>112. Not enough parking</p>	<p>113. Only a few people have a "big picture" perspective on the college.</p>
<p>114. Prerequisites that aren't listed on the curriculum sheet.</p>	<p>115. Policies that are counterproductive to enrollment—holds that prevent registration</p>	<p>116. Paperless systems with no flexibility for students who have no home computer or developing computer skills</p>
<p>117. Idiosyncratic lingo and acronyms</p>	<p>118. New staff are not aware of all the resources available for students</p>	<p>119. Residence life unwilling to support learning communities b/c they are concerned about housing at-risk students together</p>

CONCLUSION

This chapter discussed the background of the workbook and its intended audience. The workbook contains three tools designed to help institutions understand the barriers that may impact their students' persistence and completion. The Inventory, the Facilitator Guide, and the Student Focus Group Protocol were presented with detailed guidance for their use. The following chapter provides a summary of the body of work and illustrates the findings of the topic normalization process described in Chapter Three. The researcher also examines the applicability of the work to current and future student success practices, and provides recommendations for further inquiry in identifying and mitigating potential institutional inhibitors to persistence and completion.

CHAPTER FIVE: SUMMARY, FINDINGS, AND RECOMMENDATIONS

INTRODUCTION

This chapter summarizes the research that led to the development of the workbook and examines efforts to address the identified limitations. The researcher discusses alternative methodologies to identifying potential institutional inhibitors, assesses the applicability of the three tools to current and future institutional practice, and makes recommendations for further investigation.

RESEARCH SUMMARY

To review, the goals of this project were to (1) develop a typology of potential institutional barriers to student persistence and completion, and (2) develop a set of tools to assist institutions with an audit of their campus culture, policies, and practices to recognize those potential barriers. The researcher intended that the workbook resulting from the project offer an applicable tool to those engaged in and concerned with increasing credential attainment.

To develop the typology of potential institutional barriers the researcher used a card sorting activity completed by 14 current practitioners in the field of student success. Participants were given a concept deck of 120 cards, each containing a statement or idea that had been generated by workshop attendees, about potential institutional inhibitors to student

persistence and completion. Participants were asked to sort the statements into broad categories, or themes, and give each category or theme a label. These labels were then submitted to the researcher, who was able to search for common themes across the participants, developing the typology of potential institutional inhibitors using card sort topic normalization (Paul, 2014) and a spreadsheet template provided by Lamantia (2003). The researcher identified the following categories of potential institutional barriers: Assumptions, Attitudes, Policies, Procedures, and Information Gaps. For each of those categories, the researcher generated operational definitions.

The researcher used the typology generated by the analysis to inform the development of the three tools: an Inventory instrument to identify specific examples of potential barriers; a Facilitator Guide to conducting a campus audit of potential institutional barriers with faculty and staff; and a Focus Group protocol for capturing the student perspective on potential institutional barriers.

ADDRESSING LIMITATIONS

In reviewing the methodology and resulting product, the researcher identified steps that could have been designed differently to address limitations. The primary limitation involves the technique with which the Concept Card Deck was generated. Workshop participants first listened to a presentation about potential barriers and then wrote their own perceptions of and/or experiences with barriers on index cards. It is possible that some examples of barriers might have been eliminated or not emerged at all because the presentation prompted the participants' thinking in particular ways. While several different groups of participants were

asked to provide examples in an effort to get a wide representation of barriers, all participant groups listened to the same initial presentation. Although the resulting Concept Card Deck cannot be presented as representative of the complete range of potential institutional barriers, it is likely that the workbook tools, such as the creation of an institution's own card deck, will prompt the emergence of additional topics, like communication, that did not emerge from the research.

Additionally, in the Card Sort Activity, the researcher chose not to identify the student success practitioners by institutional type (highest degree, size of student body, etc.). Because the original example statements anonymously gathered from workshop participants to create the Concept Card Deck were not separated by institutional type, the Concept Card Deck was intended for initial use by a student success practitioner with at least five years of experience, at *any* institution. While the 120 statements of potential institutional barriers used in the Concept Card Deck are intended to represent a wide variety of institutions, it is important to recognize each institution has its own unique characteristics driven by mission, location, size, etc. For example, some statements in the Concept Card Deck may not apply to a two-year institution (on-campus housing, dining hall, shuttle service etc.).

The researcher addressed the fact that some of the statements might not apply to, for example, a community college, through the creation of an institution-specific Concept Card Deck as described in the Facilitator Guide in Chapter Four. In the Facilitator Guide (Tool 2) in the workbook, the researcher recommended that the facilitator determine if the institution should use the entire Concept Card Deck, if the Concept Card Deck should be culled to fit the

institution, or if the institution should engage in the creation of additional statements to formulate its own Card Deck.

ALTERNATIVE APPROACHES

The three tools developed and presented in this workbook represent the recommended approach by the researcher, depending on the culture, context, and needs of the institution. Each tool—the Inventory, the Facilitator Guide, and the Student Focus Group Protocol—can be used together or separately. The researcher provided suggestions within the workbook for how the tools might be used together.

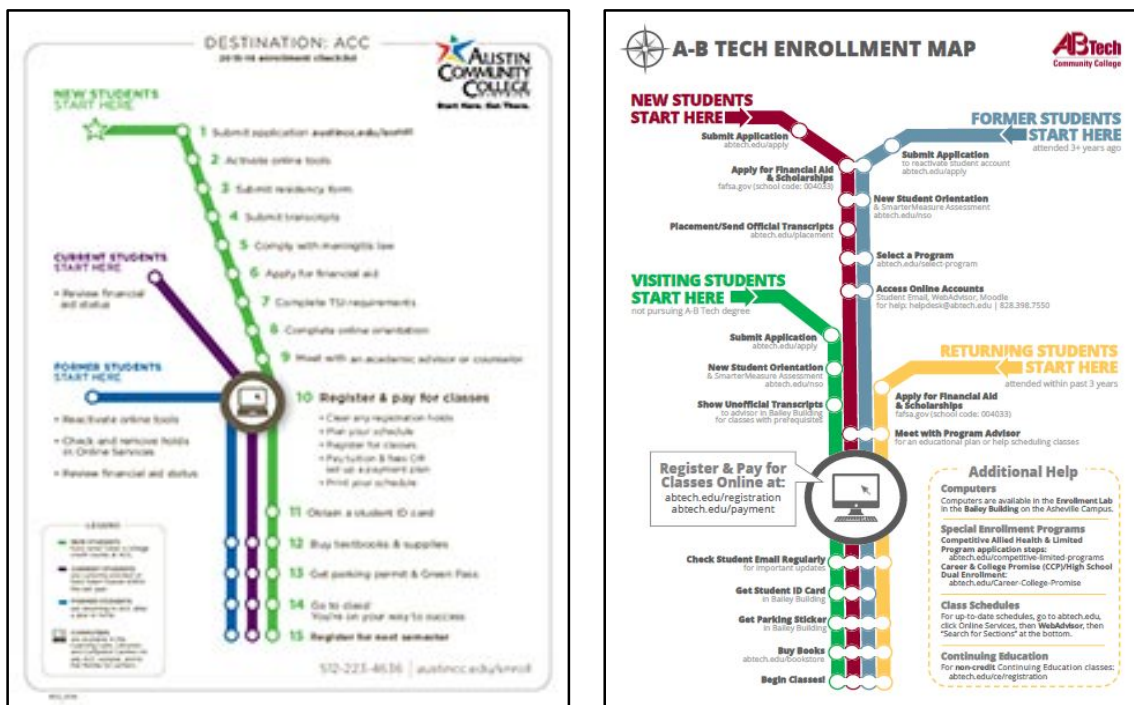
The flexibility to use one or all of the tools, and the ability to incorporate the views of the entire campus constituency (faculty, staff, and students) heavily influenced their inclusion in the final design. However, two other methodologies emerged as a result of this inquiry and warrant further consideration and investigation—process mapping and student tracking. While they have not been included in the workbook, they might prove useful to a student success practitioner seeking further understanding about potential inhibitors of student success.

Process Mapping

Process mapping has its origins in business and has since migrated to higher education. Whether related to the management, business, or support of a system, all processes must be aligned and unified to facilitate efficient performance of the total system (Gardner, 2004). Mapping involves creating a visual representation of the steps, or workflow, in the process to assess its efficiency and identify opportunities for improvement. Organizations such as the American Society for Quality (ASQ) and Continuous Quality Improvement Network (CQIN)

provide membership and training for professionals interested in learning and applying these principles.

When applied to the concept of institutional barriers, process mapping can reveal specific points in student management processes where significant numbers of students are lost. Although readily available, specific process mapping software programs are not needed; simply putting all the steps on paper in an organized manner can sometimes quickly reveal redundancies, inconsistencies, and confusing loops through which students must travel. Two similar institutional examples are seen in Figure 5, directing new, current, former, and/or visiting students through the process of starting college.



(Austin Community College, n.d.)

(A-B Tech Community College, n.d.)

Figure 5. Enrollment Process Map Examples

Once these enrollment processes have been mapped and visual representations created, the institutions might compare various retention points to with previous semesters and years to determine if fewer students are withdrawing at those points.

Student Tracking

Higher education's interest in analytics can be traced to the 2007 article "Academic Analytics" in which Campbell, DeBlois, and Oblinger defined it as "the practice of mining institutional data to produce actionable intelligence" (p. 42) and highlighted "early academic analytics initiatives seeking to predict which students are in academic difficulty, allowing faculty and advisors to customize learning paths or provide instruction tailored to specific learning need" (p. 44). These early initiatives described the use of analytics to inform enrollment management, retention, first-year students, and use of student services.

From that initial interest, higher education analytics has grown increasingly sophisticated as institutions seek to manage the student pipeline, not just diagnosing and describing what happened in the past, but predicting and prescribing future behaviors (Baer & Norris, 2015). That sophistication can be put to use in tracking and predicting student behavior, which has proliferated in higher education with the development of new tools, software programs, and apps. There are numerous ways to track—assigning online identification numbers, swiping physical identification cards to track usage of campus facilities, and monitoring the use of an institution's digital application tools and social media sites.

Depending on the ways these various data points are tracked, students are essentially leaving a trail of digital footprints or "breadcrumbs" to follow that traces their attendance at

and usage of any number of institutional resources. Recognizing patterns or regular points at which students are last tracked can reveal information about potential barriers. For example, are there certain points in the online registration process where students do not make it to the next step? Are there certain times of the day, week, month, or academic year when usage of various student support services peaks? Looking at these data may prove useful at identifying areas of improvement.

IMPLICATIONS FOR CURRENT APPLIED PRACTICE

It is important to keep in mind that simply using the three tools presented by the researcher will not be enough to improve an institution's persistence and completion rates. As with many reflective exercises and processes, an institution must make a commitment to take what is learned about its potential barriers from the Inventory, the facilitated activities with the concept cards, and/or conducting a student focus group, and then create an action plan. The tools are an indicator of potential areas of concern—further work is required to determine the extent to which a barrier might have a negative impact on student success.

An example of this might be seen if an institution were to use the guided facilitation tool, and through the prioritization activities determine that faculty and staff ranked and/or rated barriers related to curricular policies as most important to address. Specifically, perhaps they believe that GPA thresholds for certain programs could be an issue. Additional steps must be taken to determine if these policies are indeed inhibiting student progress. This might be done by convening student focus groups and asking them to participate in a similar ranking or rating exercise. If students are in agreement that program requirements could be inhibiting

progress, then further data analysis is needed. What is the outcome for students denied admission to a particular program? Do they withdraw, transfer, or take additional courses? Answering these questions will allow the institution to not only validate the faculty, staff, and student perspectives, but also to use data to inform the course of action.

This example is but one of many, and is intended to illustrate the vast amount of work to be done in identifying potential institutional barriers. As Rosenbaum et al. (2006) illustrated in *After Admission*, institutional policies and procedures can be enormously complex and convoluted, often unnecessarily so when viewed from the student's perspective. Institutions may well have spent a great deal of time and resources implementing programming targeting specific populations, to varying effect. If further improvement in student success outcomes is desired, it may be that considering the impact of potential institutional barriers is the next best step.

USING THE TOOLS TO ENHANCE INSTITUTIONAL IMPROVEMENT

While the three tools are intended for use by practitioners seeking to drive change and lead improvement efforts related to student success outcomes, there is a clear link to larger and systematic institutional improvement and strategic planning efforts that may be underway. There may be upcoming events, such as an accreditation review or the appointment of a new leadership team, that could be informed by the institutional conditions and characteristics identified in the Inventory, the Facilitated card sorting activities, and/or the Student Focus Groups.

If an institution is interested in using the tools as part of a wider process, it will be a good idea to clearly define the desired outcomes and products that will be included. A steering committee can be convened that is responsible for determining which of the tools and activities will be used, the timeline, resources needed, and additional stakeholders to involve. Once the most important barriers to address are agreed upon through the various methods, that information can be linked to or included in the strategic plan, assurance argument, or quality improvement plan.

RECOMMENDATIONS FOR FURTHER RESEARCH

This study and the foundational literature review have demonstrated the need to further explore the possibility that institutions contribute to attrition through policies and practices that may inhibit student success. The researcher intends to advance this work with institutions by testing the application of the workbook and the three tools. Two of the practitioners who completed the Card Sort Activity voluntarily set aside their anonymity and revealed to the researcher ways in which they had used the Card Deck provided by the researcher to further conversations about potential barriers on their respective campuses.

These two conversations provided an initial “proof of concept,” or evidence that demonstrates an idea, invention, or process—in this case, the researcher’s workbook—is feasible. One practitioner used the researcher’s Concept Card Deck to facilitate an activity ranking potential barriers much like the one found in the workbook in Chapter Four, with 65 faculty and staff during his institution’s spring retreat. The second practitioner used the researcher’s Concept Card Deck to facilitate a Card Sort Activity and conversations with three

other administrators, and provided the researcher with additional plans for engaging the broader faculty and administrative groups in activities to identify and rank potential barriers. The researcher envisions working with this institution and others to further test and refine the three tools in the workbook.

REFLECTIONS

The decision to pursue the development of a product dissertation was grounded in the researcher's observations during employment-related interactions with institutions. Student success practitioners attending persistence and completion workshops and presentations often remarked on struggles and frustrations with implementing what amounted to a grab-bag of high-impact practices and targeted intervention programs. Despite such practices having a reputation for improving retention rates, institutions were not achieving the impact or success they sought.

In conversations about the apparent disconnect between what institutions perceive will work when designing a process, a website, etc., and what students ultimately experience, the idea emerged that "students seem to get hassled as they work for the tassel"—additional requirements, rules, barriers, punishments, not being able to find information. Yet this seemed to put the institution in the way of its own success. Could it be that institutions might not be aware of the possible hassles students perceive? As the researcher began to further explore the concept of "Hassles to Tassels" it became clear just how likely this is. After an initial literature review revealed only a few sources on the topic, the researcher committed to developing an instrument that might assist institutions in raising that awareness.

To move from an idea and discussion to application requires a tool, a way to capture the information and move it forward. The researcher is grateful for the dissertation option to create a useful product that contributes to the field, and for the student success practitioners who willingly shared the bumps and warts of their experiences in higher education. There remains much work to be done, but only when the participants are willing to share potential flaws can opportunities for improvement be identified.

CONCLUSION

As a result of this study the researcher was able to develop a typology of potential institutional barriers to student persistence and completion, and develop a set of tools to assist institutions with an audit of their campus culture, policies, and practices to recognize those potential barriers. At the local level, this study and the resulting product can be used by institutions to identify potential barriers to student success and initiate conversations and plans for addressing them. At the national level, this study and the resulting product may prompt a reexamination of the decades-old theories and assumptions about what works in improving persistence and completion. At both the local and national level, the study could eventually contribute to a reworking of policies and procedures that serve as barriers.

Once students make the decision to seek a credential and commit to an institution, that institution has an obligation to ensure its policies and procedures are in alignment with and support the eventual successful outcome of the students. While most of the literature and traditional theories on student attrition have supported the development of targeted retention interventions for specific populations, institutions need to likewise evaluate the impact of their

own policies and environments. This study is but an initial step on an extended journey toward viewing student success as an outcome to which many variables contribute and deserve equal consideration.

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APPENDIX A: EMPLOYER APPROVAL LETTER



HIGHER LEARNING COMMISSION

230 South LaSalle Street, Suite 7-500
Chicago, IL 60604-1411
312.263.0456 | 800.621.7440
Fax: 312.263.7462 | hlcommission.org

August 20, 2015

Amber Holloway
Associate Vice President for Quality Services
Higher Learning Commission
230 S. La Salle St. Suite 7-500
Chicago, IL 60604

Project Title:
Hassles to Tassels: Potential Institutional Inhibitors to Student Persistence and Completion

Dear Amber:

The purpose of this letter is to notify you of the Higher Learning Commission's (HLC's) approval of your use of information generated during the course of your regular employment duties as the basis for your further research. Such information consists of ideas, conversations, and statements generated by attendees at past workshops and presentations, prior to the commencement of your research project.

It is HLC's understanding that you would like to use this information as the raw material for a card sort methodological approach to explore the potential existence of institutional barriers to student persistence and completion. Once you receive approval for this approach from the Ferris State University Institutional Review Board, you will be responsible for notifying HLC of any subsequent changes to your research project.

It is important to the Commission to honor the sense of privacy of individuals who generated the raw material. Although the raw material is completely anonymous, because the individuals who provided this material at the time did not realize that their responses would be used for future work, I ask that you seek HLC permission prior to the material being used in ways beyond the dissertation.

Best wishes on an exciting dissertation topic that will undoubtedly benefit higher education!

Sincerely,

Andrew Lootens-White, Ph.D.
Vice President and Chief Operating Officer

APPENDIX B: FERRIS STATE UNIVERSITY IRB APPROVAL LETTER

FERRIS STATE UNIVERSITY

Institutional Review Board for Human Subjects in Research

Office of Academic Research, 220 Ferris Drive, PHR 308 · Big Rapids, MI 49307

Date: September 22, 2015

To: Dr. Susan Hatfield, Dr. Sandra Balkema and Ms. Amber Holloway
From: Dr. Gregory Wellman, IRB Chair
Re: IRB Application #150904 (*Hassles to Tassels: Potential Institutional Inhibitors to Student Persistence and Completion*)

The Ferris State University Institutional Review Board (IRB) has reviewed your application for using human subjects in the study, "*Hassles to Tassels: Potential Institutional Inhibitors to Student Persistence and Completion*" (#150904) and determined that it meets Federal Regulations *Expedited-category 2G*. This approval has an expiration of one year from the date of this letter. **As such, you may collect data according to the procedures outlined in your application until September 22, 2016.** Should additional time be needed to conduct your approved study, a request for extension must be submitted to the IRB a month prior to its expiration.

Your protocol has been assigned project number (#150904), which you should refer to in future correspondence involving this same research procedure. Approval mandates that you follow all University policy and procedures, in addition to applicable governmental regulations. Approval applies only to the activities described in the protocol submission; should revisions need to be made, all materials must be approved by the IRB prior to initiation. In addition, the IRB must be made aware of any serious and unexpected and/or unanticipated adverse events as well as complaints and non-compliance issues.

Understand that informed consent is a process beginning with a description of the study and participant rights with assurance of participant understanding, followed by a signed consent form. Informed consent must continue throughout the study via a dialogue between the researcher and research participant. Federal regulations require each participant receive a copy of the signed consent document and investigators maintain consent records for a minimum of three years.

As mandated by Title 45 Code of Federal Regulations, Part 46 (45 CFR 46) the IRB requires submission of annual reviews during the life of the research project and a Final Report Form upon study completion. Thank you for your compliance with these guidelines and best wishes for a successful research endeavor. Please let us know if the IRB can be of any future assistance.

Regards,



Ferris State University Institutional Review Board
Office of Academic Research, Academic Affairs

Version 1.2015

APPENDIX C: 120 STATEMENTS USED TO CREATE CONCEPT CARD DECK

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| 120. Faculty not returning graded material promptly or with feedback. | 1. Dropping students for nonpayment | 2. Previous unsuccessful initiatives make people unwilling to try something that is perceived to have failed in the past. |
| 3. Curricula policies with multiple if/then contingencies that are difficult to understand | 4. Inflexible policies and deadlines | 5. Many resources are set up for full-time students not part-time students |
| 6. Placing incoming first semester students in difficult science courses taught by more rigid professors | 7. Schedules designed for faculty convenience, not student convenience. | 8. Faculty who refuse to collaborate with other services (tutoring, writing center, etc.) |
| 9. Lack of customer service attitude in key offices | 10. Assuming that all faculty are effective advisors. | 11. Artificially high GPA requirements for programs that don't require high GPAs to be successful |
| 12. Faculty don't respond to emails | 13. Remedial classes are only offered in person, during the day, 4 days per week | 14. Developmental courses don't count towards degree |
| 15. There is a comprehensive first-year experience program and lots of support for first year students, nothing for sophomores | 16. Programs that admit students only one time in calendar year (creating waiting lists) | 17. If a student fails a course in a curriculum that has been revised, they need to start over under the new program. |
| 18. Withholding information that could save students time or money. | 19. Fees to graduate even if you are not participating in the graduation ceremony | 20. Different colleges at the institution have different general education requirements making it difficult to transfer. |
| 21. Too much information at orientation | 22. If a student stops out, the student is withdrawn from the program & institution. Students must reapply for admission to the institution to return. | 23. Required physical education course for graduation |

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| 24. Admissions process is too complicated for international students | 25. Assuming adult students can navigate the institution on their own | 26. Allowing students to take online courses without consideration of academic readiness. |
| 27. The belief that undecided students are academically underprepared | 28. Satisfactory Academic Progress (SAP) may be mathematically impossible for some students. | 29. Course offerings based on what faculty like to teach and not what courses students need to take. |
| 30. Lack of proactive interventions for struggling students | 31. Adjunct and new faculty don't always know the institution well enough to be able to answer student questions | 32. First year experience course serves as a gatekeeper. |
| 33. Retaining GPAs from a student's previous attempt at college which might have been years ago. | 34. Limited faculty office hours make it difficult for students to meet with them | 35. Multi-stop registration |
| 36. Computer systems allow students in developmental education to take any other courses they want, so students who can't read at a college level can enroll in a reading | 37. Students can change majors without talking with their advisor. | 38. Rule that students who are not on campus for a semester lose scholarships (including study abroad students). |
| 39. Lack of direct knowledge about how to work with students from diverse cultural and social backgrounds | 40. Admitting students we are unprepared to support. | 41. Institutions use inconsistent methods to contact students—mail, email, text, etc. |
| 42. Belief that highly prepared students encounter no barriers and all will be retained | 43. Lack of orientation and/or help for specific student populations such as international, first generation, veterans, transfer, etc. | 44. Residence hall capacity limits available housing for students |
| 45. Too many policies set on financial considerations rather than student needs | 46. Faculty believe that a percentage of students will drop out | 47. We forget to make our institutions about our students. |

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| 48. Forms and processes are too complex for students and families to understand. | 49. High student to advisor ratio | 50. Required classes that are Fall only/Spring only/or alternate year offerings |
| 51. The worst teachers have the smallest classes (after students drop) and are rewarded by having less grading to do because they have fewer students. | 52. Paired courses make it difficult for students to create a schedule | 53. Low faculty participation in early alert initiatives |
| 54. Institution not forthcoming about information that would help students. | 55. Faculty tenure and promotion requirements are in conflict with the focus on student success | 56. Students can only begin certain programs in the fall. |
| 57. Limited enrollment in courses prerequisite to major requirements | 58. The assumption that students who take courses at local, less prestigious institutions do not do as well in our courses. | 59. Lack of feedback/reinforcement / answers - slow response to students (phone calls, emails, follow up) |
| 60. Faculty tell students that some of them will have dropped by end of semester. | 61. Believing that all of our students are technologically skilled. | 62. Not enough help for students in the middle (not designated special populations and not top performing) |
| 63. Unwelcoming campus culture | 64. Siloed decision-making, e.g. academic standards sets a new policy, registrar enforces it, faculty and advisors were not consulted about impact on student success | 65. Campus shuttle service doesn't meet the needs of students |
| 66. Late admits wind up in the same residence hall and the same classes. | 67. Only one instructor for gatekeeper courses--Anatomy, Chemistry, etc. with high Drop/Fail/Withdraw rates | 68. Website is set up to recruit potential students but not to inform current students |
| 69. Assumption that students can master the intricacies of our website with little guidance | 70. Using guidelines as penalties, not learning opportunities; i.e. failing students for plagiarizing instead of helping them understand what it is. | 71. Financial Aid counselors believe that "All students are trying to game the system" |

72. Advising capacity not enough to meet needs

73. A lot of fees seem like they are fines

74. Unwillingness of staff to assist students beyond their specific job description.

75. Procedures that "punish" students but are framed as "tough love"

76. Critical courses scheduled in conflicting/overlapping time slots

77. Students often save the general education requirements for last and then drop out without degree

78. Residence life seems more interested in catching students breaking rules than helping them be good citizens

79. Turning away students who show up late for assessment tests

80. Students have to take many specific courses before they can be admitted to a major (making it difficult to change majors).

81. Condensed program schedule means even a single legitimate absence due to illness results in dropping the course

82. Fighting for and defending territory between different offices all professing to support student success.

83. Assuming that the only way students learn is if we lecture at them.

84. GPA thresholds to take key courses in major

85. Math requirements in programs that don't require that level of quantitative ability

86. Most Gen Ed classes are full by the time first year students register.

87. Requirements make it hard to transfer into institution

88. Grade quotas (number of A's, B's, C's, D's, F's.)

89. Complex rules related to double dipping in general education courses.

90. The best faculty on campus seldom teach first year students.

91. Lack of step by step instructions for students to follow until graduation

92. Belief that our issues will be resolved if we raise admissions standards.

93. Community college makes co-enrolled university students do all assessments—as if straight out of high school—in order to register.

94. Lack of fallback options for students not admitted to their programs.

95. Expecting a high failure rate in our developmental math classes

- | | | |
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| 96. Lack of advising to make sure students are not taking too many courses/unnecessary courses/ courses that won't transfer. | 97. If student isn't happy, they should leave (rather than explore why) | 98. Believing that a high drop rate is a sign of instructor/course/program/college rigor |
| 99. Administrative processes and sequences are unclear to students | 100. Having to declare a major during the first semester. | 101. Additional graduation requirements, such as assessment portfolios |
| 102. Trying to be accommodating by allowing new to students to register and begin classes as late as second week of semester, even though these students rarely | 103. Treating first-generation/blue collar students as lacking motivation. | 104. Failing students who miss 2 clinical days no matter why they missed class (ie illness). |
| 105. Blaming admissions for "poor quality" students | 106. No cars allowed on campus so students feel trapped. | 107. Admitting significantly more students than will be able to enroll in specific majors because of enrollment limits |
| 108. Each campus sets their own policies creating inconsistency for the students | 109. Lack of general knowledge about rules and policies. Student often get the run around when looking for the right answer. | 110. The view that if students are in sports, they will stay in school. |
| 111. The perception that we do not need to please students or meet students needs. | 112. Not enough parking | 113. Only a few people have a "big picture" perspective on the college. |
| 114. Prerequisites that aren't listed on the curriculum sheet. | 115. Policies that are counterproductive to enrollment—holds that prevent registration | 116. Paperless systems with no flexibility for students who have no home computer or developing computer skills |
| 117. Idiosyncratic lingo and acronyms | 118. New staff are not aware of all the resources available for students | 119. Residence life unwilling to support learning communities b/c they are concerned about housing at-risk students together |

APPENDIX D: RECRUITMENT INVITATION EMAIL

Dear _____:

I am a student in the Ferris State University Doctorate in Community College Leadership (DCCL) Program. I am seeking your input as a practitioner in the field of student persistence and completion.

Much of the research and literature pertaining to retention, graduation, completion, etc. focuses on student behaviors and choices. The focus of my dissertation research will explore the ways in which an institution's policies, practices, and procedures may inhibit students' progress and persistence.

My ultimate goal is to create an audit tool for an institution to use in determining which barriers it has in place, and provide recommendations for removing them in the analysis of campus culture for potential inhibitors of student persistence.

Your participation in the process described below will assist in providing expert validation of initial information gathered on these potential barriers and practices.

Background Information:

Conference and workshop attendees listened to a presentation called "Hassles to Tassels: Potential Institutional Inhibitors to Student Persistence and Completion" in which they were asked to consider if institutions play a role in low retention and graduation rates. They were provided with examples of possible policies, barriers, and hassles. Attendees then participated in discussions and wrote responses to the question: Have you experienced or heard of any potential institutional inhibitors to student persistence and completion? Responses were anonymous.

Study Description

If you meet the qualifications and agree to be part of this study, you will be sent a deck of 148 numbered cards, each containing a statement about persistence and completion. You will be asked to sort the cards into 10 categories, give each category a label, and, using a worksheet, record the label of each category and numbers of which cards you placed into which categories. You will then be asked to transcribe the information into a confidential collection tool using a link in SurveyMonkey. You will also be asked to record any additional statements you believe are missing or not captured on the cards, and any overall comments about the activity.

The sorting activity, recording information on the template, and submitting your anonymous responses via SurveyMonkey is estimated to take approximately 45 to 60 minutes.

Qualifications:

- At least five years of experience in positions related to student retention and completion at regionally accredited institutions
- Hold an advanced degree

Next Steps:

- If you are interested in participating, please carefully read the attached Informed Consent form, then print, sign, and scan the form back to me at hollowa8@ferris.edu. When sending the Informed Consent document to hollowa8@ferris.edu, please include in the body of the email the preferred mailing address to which I should send the deck of cards for the sorting activity.

- If you have additional suggestions for participants for this study at your own or a different institution, please email the name(s) and contact information to me at hollowa8@ferris.edu. Any suggested participant(s) will receive this same invitation, and will be informed that you provided their name. Providing additional names is not required.

Participation or non-participation in this study will not have an effect upon the relationship with other parties involved in the research.

If you have any questions about any aspect of this study please do not hesitate to contact me.

Sincerely,
Amber Holloway

APPENDIX E: INFORMED CONSENT

CONSENT TO BE PART OF A RESEARCH STUDY

RESEARCHER INFORMATION

Project Title: Hassles to Tassels: Potential Institutional Inhibitors to Student Persistence and Completion

Principal Investigator: Amber Holloway

Email: hollowa8@ferris.edu Phone: 512-773-0033

Faculty Advisor (if PI is a student): Susan Hatfield

Email: SHatfield@winona.edu Phone: 507-454-6295

STUDY PURPOSE

You are invited to participate in a research study about potential institutional inhibitors to student persistence and completion. Researchers are interested in the ways in which an institution's policies, practices, and procedures may inhibit students' progress and persistence.

PARTICIPATION

Taking part in this study is completely voluntary. You are invited to participate in this study because I am seeking your input as a practitioner in the field of student retention and completion.

If you agree to be part of this study, you will be sent a deck of 148 numbered cards, each containing a statement about retention and completion. You will be asked to sort the cards into 10 categories, give each category a label, and record the numbers of which cards you placed into which categories. You will also be asked to record any additional statements you believe are missing or not captured on the cards, and any overall comments about the activity. You will be asked to submit this information via SurveyMonkey.

The study will take approximately 45 to 60 minutes to complete and your participation will be over when you submit the results of your card sort using the SurveyMonkey template.

POTENTIAL RISKS

Researchers anticipate minimal risk through participation in this study. However, you may still experience some risks related to your participation, even when the researchers are careful to avoid them.

The known or expected risks include: Potential for breach of confidentiality regarding participation in the study, should the Dropbox account be breached where this consent form will be stored. Card sorting data will be submitted anonymously via SurveyMonkey and not kept in the Dropbox account in a manner that could be identified with individual participants.

ANTICIPATED BENEFITS

Although this research is not designed to help you personally, others may benefit from your participation because this research has the potential to benefit the discipline and profession(s) related to higher education and student success as a whole through the contribution of an audit tool that may assist institutions in self-reflection and correction regarding the degree to which their own practices may be contributing to low rates of retention and graduation.

CONFIDENTIALITY

Signing this form is required in order for you to take part in the study and gives the researchers your permission to obtain and use the information you provide for this study.

In order to keep your information safe, the researchers will maintain your confidentiality. The information you submit via Survey Monkey will not ask for your name. Your consent form will be stored in a Dropbox account, along with spreadsheets created from the information collected by Survey Monkey. The data in the spreadsheets will not be identified using names and cannot be linked to the consent form. The researchers will store the data for no longer than two years after dissertation approval and consent forms will be maintained for a minimum of three years following the research according to federal regulations. The data will not be made available to other researchers for other studies following the completion of this research study and will not contain information that could identify you.

CONTACT INFORMATION

The main researcher conducting this study is *Amber Holloway*, a graduate student at Ferris State University. If you have questions, you may contact *Amber Holloway* at *hollowa8@ferris.edu* or 512.773.0033.

If you have any questions or concerns about your rights as a subject in this study, please contact: Ferris State University Institutional Review Board (IRB) for Human Participants, 220 Ferris Drive, PHR 308, Big Rapids, MI 49307, (231) 591-2553, IRB@ferris.edu.

SIGNATURES

Research Subject: I understand the information printed on this form. I understand that if I have questions or concerns about the study or my participation, I may contact one of the people listed above in the "Contact Information" section. I understand that I may print a copy of this form at the time I sign it.

Signature of Subject: _____

Printed Name: _____

Date of Signature: _____

Principal Investigator (or Designee): I have given this research subject information about this study that I believe is accurate and complete. The subject has indicated by his/her signature that he/she understands the nature of the study and the risks and benefits of participating.

Printed Name: _____

Title: _____

Signature: _____

Date of Signature: _____

APPENDIX F: CARD SORT ACTIVITY INSTRUCTIONS AND WORKSHEET

Background Information:

Conference and workshop attendees listened to a presentation called “Hassles to Tassels: Potential Institutional Inhibitors to Student Persistence and Completion” in which they were asked to consider if institutions play a role in low retention and graduation rates. They were provided with examples of possible policies, barriers, and hassles. Attendees then participated in discussions and wrote responses to the question: Have you experienced or heard of any potential institutional inhibitors to student persistence and completion? Responses were anonymous.

Each card that you have received is numbered and has one statement about student retention and/or completion that was generated from audience responses and discussions.

Instructions:

- Read the cards, looking for major themes that you can put into categories
- Sort the cards into no more than 10 categories/groups and give each category/group whatever label you believe best represents the grouping
- Each card may be placed in only one category
- On the worksheet below, record the 10 labels you created, along with the numbers printed on the cards you placed into that category
- Using the following SurveyMonkey link, transcribe the information from your worksheet into the survey: <https://www.surveymonkey.com/r/YQNNYLL>
- Record any missing or additional items you have experienced or heard of that are not captured on the cards
- Record any comments or questions you have about the process
- Note any items you believe do not belong in any category
- Note which cards you had difficulty putting into a category

Participant Card Sort Worksheet

Label for Category/Grouping	Numbers on Cards Placed in Category

Any missing or additional items you have experienced or heard of that are not captured on the cards?

Were there any cards you had difficulty placing in a category? Please list the card number(s) here, along with any comments about the statement on the card:

Are there any cards you believe do not belong in any category? Please list the card number(s) here, along with any comments about the statement on the card:

Any thoughts or comments on the overall experience of the sorting activity?

APPENDIX G: SURVEY MONKEY COLLECTION TOOL

Institutional Barriers to Persistence and Completion

Welcome to My Survey

Background Information:

Conference and workshop attendees listened to a presentation called "Hassles to Tassels: Potential Institutional Inhibitors to Student Persistence and Completion" in which they were asked to consider if institutions play a role in low retention and graduation rates. They were provided with examples of possible policies, barriers, and hassles. Attendees then participated in discussions and wrote responses to the question: Have you experienced or heard of any potential institutional inhibitors to student persistence and completion? Responses were anonymous.

Each card that you have received is numbered and has one response that was provided by the audience.

Instructions:

- Read the cards, looking for major themes that you can put into categories
- Sort the cards into no more than 10 categories/groups and give each category/group whatever label you believe best represents the grouping
- On the template provided, record the 10 labels you created, along with the numbers printed on the cards you placed into that category
- Record any missing or additional items you have experienced or heard of that are not captured on the cards
- Record any comments or questions you have about the process
- Note any items you believe do not belong in any category;

Please identify the title you gave your first category

Please identify the numbers of the cards that you placed in this category, separated by commas

Please identify the title you gave your second category

Please identify the numbers of the cards that you placed in this category, separated by commas

Please identify the title you gave your third category

Please identify the numbers of the cards that you placed in this category, separated by commas

Please identify the title you gave your fourth category

Please identify the numbers of the cards that you placed in this category, separated by commas

Please identify the title you gave your fifth category

Please identify the numbers of the cards that you placed in this category, separated by commas

Please identify the title you gave your sixth category

Please identify the numbers of the cards that you placed in this category, separated by commas

Please identify the title you gave your seventh category

Please identify the numbers of the cards that you placed in this category, separated by commas

Please identify the title you gave your eighth category

Please identify the numbers of the cards that you placed in this category, separated by commas

Please identify the title you gave your ninth category

Please identify the numbers of the cards that you placed in this category, separated by commas

Please indicate the title you gave your tenth category

Please identify the numbers of the cards that you placed in this category, separated by commas

Please indicate the type of institution where you are currently employed

Did you notice any missing or additional items you have experienced or heard of that are not captured on the cards?

Were there any cards you had difficulty placing in a category? Please list the card number(s) here, along with any comments about the statement on the card:

Are there any cards you believe do not belong in any category? Please list the card number(s) here, along with any comments about the statement on the card:

Please share any thoughts or comments you have on the overall experience of the sorting activity

Done

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