5-9-2022

Engaging the Adult College Student: A Case Study on Improving Nontraditional Students’ Persistence

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A final project presented to the faculty of the
Instructional Design Master's Degree Program
University of Massachusetts at Boston

Engaging the Adult College Student:

A Case Study on Improving Nontraditional Students' Persistence

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in partial fulfillment for the requirement of the degree
MASTER OF EDUCATON

May 9, 2022

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Abstract

Nontraditional students, defined as those age 25 and older, had a first-year persistence rate of just 46.8% in 2019 (National Student Clearinghouse, 2021). The Education Fund, a large non-profit that provides training and tuition assistance to healthcare workers, is acutely aware of this problem as its membership is made up almost entirely of nontraditional learners. The Education Fund has many college readiness programs, and in an effort to improve upon their outcomes, requested this study on student persistence. Research on nontraditional student persistence was conducted and key Education Fund staff were interviewed as part of this project. While the literature lacks robust studies, there are strategies that could be implemented to improve the likelihood Education Fund members will persist. Engagement with the college community, specifically instructors and peers, is key to nontraditional students' success. Given the gap between what the Education Fund offers and the strategies that are most likely to improve persistence, recommendations include increasing the data collected on student outcomes, enhancing the existing intake process, creating an orientation program, and establishing a mentoring program. The Education Fund offers an impressive array of programs and given its size, nearly 10,000 nontraditional learners in credit and non-credit courses, it could make a significant contribution to what has thus far been an intractable problem.

Keywords: persistence, retention, nontraditional, college-readiness, first-year seminar

Engaging the Adult College Student: A Case Study on Improving Nontraditional Students' Persistence

There are many adult education programs and first-year college seminars that aim to improve nontraditional college students' completion rates. Nontraditional students, defined as those age 25 and older, had a first-year persistence rate of just 46.8% in 2019 (National Student Clearinghouse, 2021). Unfortunately, few evidence-based strategies have been proven to improve persistence. The Education Fund, a large non-profit that manages education benefits for healthcare workers, works almost exclusively with nontraditional students. The Education Fund (the Fund) has many non-credit foundational programs, from English for non-native speakers to college preparatory courses. The following paper seeks to identify gaps between what is known to improve nontraditional learners' outcomes and what is presently offered by the Fund. Interestingly, attrition is not attributed to the nontraditional students' background as much as their lack of engagement once enrolled in college relative to younger students who attend right after high school. The discussion offers a series of recommendations that, taken together, ought to improve the Fund's outcomes. These include an improved intake process, a mandatory orientation session, and establishing a mentorship program. First, the Fund must improve its data collection and analysis so that the current programs and future interventions can be evaluated.

Background

The Education Fund is a joint labor-management program that manages the education benefits for over 275,000 healthcare workers. These healthcare workers are part of a union that negotiates the education benefit into the contract. Employers pay into the commingled fund that the Education Fund (the Fund) uses to provide college tuition assistance, continuing education reimbursement, and many other professional development opportunities to union members. The Fund was created over 50 years ago with the goals of retaining quality employees and offering them opportunities to meet career goals through training and education. The main stakeholders are the employers paying into the Fund, the union which negotiates the benefit into the contract, and the members who are eligible for the benefit.

In the realm of adult education, commingled funds like this are unique in that they are not answering to the government, foundations, or students for funding as most adult education programs and public colleges must do. They are not required to meet quotas set by foundations, nor does the Fund feel the pressure some programs do to meet pass rates or risk losing accreditation. Instead, the union members eligible for the benefit decide whether or not they are going to participate. Their success or failure is not reported back to the union or the employer. In fact, the union and employer have no access to detailed information about which individuals participate in the Fund-sponsored program. This policy benefits the members, who are free to pursue any program within healthcare and have no commitment to remain at their employer after program completion. It also allows flexibility for the Fund to offer an array of programs, some of which might not result in outcomes that would satisfy stakeholders such as foundations or state agencies who are looking for clear evidence of learner gains. An unintended consequence, however, is that since the Fund is not forced to collect data and it often does not do so. This makes self-evaluation difficult, and without a baseline for a study such as the one discussed here, there is no way to determine the degree of success for the Fund's current programs or where an intervention might be needed.

The demographics of the Fund's members are consistent with those of college students who are *least* likely to complete their program of study. Consider that 94% of students being supported by the Fund are over 25 years old, and according to the National Student Clearinghouse Research Center (2022), "the first-year persistence rate for students age 25 and older who began college in 2018 was over 33 percentage points lower than that of students age 20 and younger (47.3% compared to 80.4%)" (p. 1). Fund members must be working at least part-time to be eligible for tuition assistance. Many work full-time or have more than one job, take care of children or parents, are non-native speakers, and do not have the academic skill set to assess into credit-bearing courses. These risk factors decrease the likelihood a student will persist (Engle & Tinto, 2008).

To address the challenges that accompany these characteristics, the Fund offers an array of services, including non-credit courses, counseling, and tutoring. The courses include English for Speakers of Other Languages (ESOL), adult basic education, high school equivalency, and college preparation. The ESOL program alone has six levels and approximately 1,200 students. There is also a learning center, which provides tutoring, counseling, and technology support. The Fund also provides training for the 65 teachers in this department. Separately, about 600 students participate in the Core Curriculum Program. This program uses a cohort model, with students working through a series of credit-bearing courses that satisfy the prerequisites needed for most healthcare programs.

In the fall of 2021, the Fund added an online college readiness course. The goal was to build digital literacy skills so that the students were comfortable with the common tools instructors use in an online course (e.g., discussion boards, submitting assignments). The course itself was taught in the Moodle learning management system. For the next iteration of this college readiness course, Fund staff requested input on the curriculum. This paper stems from that request, with an initial aim to identify which curriculum should be included in a college-readiness course. As the needs assessment unfolded, it became clear that, 1) there is no clear evidence on which curricula is effective, and 2) when looking more broadly at what might improve persistence, revising the curriculum of a college-readiness course would be just one small piece of the overall intervention. Therefore, the needs assessment expanded from looking narrowly at college-readiness curricula at adult education centers to all strategies adult education centers and first-year seminars at colleges use to improve the persistence of nontraditional students.

Method

A needs assessment was conducted to 1) find an evidence-based curriculum that has been proven to improve nontraditional students' persistence, 2) take an inventory of what the Education Fund offers, and 3) based on the results, provide recommendations within the Fund's budgetary constraints.

Research was conducted using UMass Boston databases as well as adult education networks such as the National College Transition Network (NCTN) and the U.S. Department of Labor's Literacy Information and Communication System (LINCS). Additional resources were requested from a subject matter expert at WorldEd, a non-profit focused on adult learners.

While this research was being conducted, data specific to the Fund was collected through a series of interviews and email correspondences. Four key Education Fund staff were interviewed as part of the needs assessment, and several more were contacted via email to collect demographic data, curricula, and results of the Core Curriculum Program study that will be discussed below. The aim interviews aimed to learn more about the Fund's goals with their pre-college programs, what they thought was effective, and where they saw room for improvement. There was an effort to keep these meetings informal and relaxed as questioning a director's goals and outcomes could be interpreted as threatening. The approach was to elicit the intended information within a conversation, rather than a rigid question/answer format. The outline in Appendix A was used to structure the first interview. Subsequent interviews followed a similar format, where a rough outline was followed, but more targeted information was sought out based on the ongoing research and the interviewee's role within the Fund.

The first interview was with the Fund's director in charge of the non-credit programs. Non-credit programs include English for Speakers of Other Languages, Citizenship, Prep Academy, and an in-person learning lab. The Prep Academy is a four-level program that begins with adult basic education at level 1 and ends with high school equivalency at level 4. The learning lab offers drop-in tutoring, small group instruction, and a computer lab. The aim of this first interview was to get a high-level overview of the non-credit programs and learn more about The Fund's college readiness curriculum. In addition, the interview sought to clarify the objectives of the college readiness courses, and what the director would add if she had more resources to dedicate to that particular program. Finally, the director was asked for recommendations on who else should be interviewed for this project and how to obtain data on demographics and program outcomes.

The second interview was with the associate director in charge of Prep Academy. The third interview was with the manager of Prep Academy Level 4, which includes college readiness content. The final interview was with the director of the Core Curriculum Program. This more of a presentation by the director about the outcomes of the 2017 cohort than an interview.

Two limitations should be noted. First, rigorous studies on college readiness programs at adult education programs are scarce. When research for this project expanded to programs run by colleges, often referred to as first-year seminars, the results were more promising. Had the initial research begun with those parameters, it is possible other studies and conceptual frameworks would have been able to inform this paper. Second, collecting data from Fund staff and scheduling interviews was difficult given Fund staffs' current workload. As a healthcare union, there have been heavy demands on the Fund during the COVID-19 pandemic. As with other employers throughout the nation, the Fund is also operating short-staffed. The final meeting with the Core Curriculum Program director, for example, was postponed several times and then the meeting was cut short because of a scheduling conflict. It is possible that more time spent with that director would uncover additional relevant information.

Literature Review

This literature review begins by clarifying common terminology in the college readiness literature. Next, some conceptual frameworks are explored, followed by an overview of studies that have been conducted in an effort to validate these frameworks.

Terms such as “persistence” or “retention” are used inconsistently in college readiness literature. The most common distinction is that persistence describes students who continue semester to semester regardless of which college they attend, whereas retention means the students remain at the same institution each semester (National Student Clearinghouse Research Center, 2022); that is, retention is a subset of persistence. This paper is most interested in overall persistence regardless of the school. Indeed, we could simply focus on students who complete a program. However, if we were to limit this study to only those who complete, we would not be able to include most of the research here. The primary goal of most colleges is retention (i.e., keeping students at their institution), with special attention paid to getting students to enroll in their third semester because the drop rate is highest between the spring semester (a new student’s second semester) and the fall semester (their third semester, excluding summer). Therefore, there are more studies that look at these early years than those that track students over their full academic career. Within this paper the term persistence will be used wherever possible unless it would change the intent of another source.

College readiness programs go by many names, such as first-year seminar, transition to college, college bridge program, first-year success, and college orientation (Lane & Miller, 2019). Some of these programs are standalone courses, while others offer a full range of services like career counseling and tutoring support. Some are short orientations; others run a full semester. Some of these courses prepare learners for the rigors of college math and English, while the primary aim of others can be limited to familiarizing students with the support services of the school and perhaps a few study strategies (e.g., note-taking, time management, etc.). All of these variations make comparisons among college readiness programs difficult (Flint, 2005). For the purposes of this paper, college readiness will be used to refer to any of these programs.

Above "nontraditional" students are defined as adults over 25 years old. While that only distinguishes them by age, a more comprehensive picture of the characteristics that define these learners can be found in Appendix B. As Engle and Tinto (2008) note, "the risk factors are often interrelated: many students who have one risk factor (e.g., enroll part-time) tend to have other risk factors as well (e.g., work full-time)" (p. 9).

There are several models that aim to explain the factors that influence persistence. While a full review of these theories is beyond the scope of this paper, highlighting a few will inform this discussion.

Barbaro (2021) recently interviewed Vincent Tinto, one of the most widely cited researchers in this field, about his Model of Retention, which posits that:

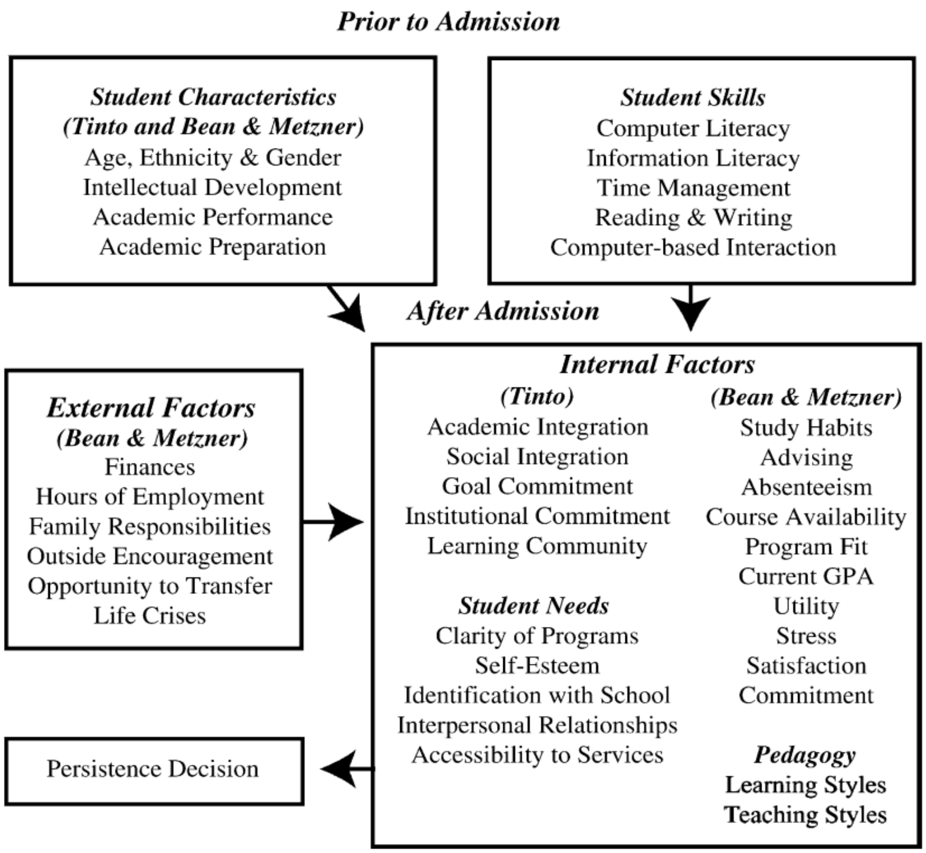
> All students come to college and university with a lifetime of prior experiences; and these experiences shape how students experience the array of different communities at our educational institutions. Students who feel they belong and matter within these communities increase students' commitment to an institution and fosters their motivation to persist. (para. 2)

The Model of Retention also claims that this sense of belonging and student integration can be thought of in terms of the academic dimension and the social dimension (Chrysikos, 2017). Students who do not feel engaged intellectually or do not believe the program will meet their personal goals are not likely to persist. Similarly, those who do not make personal connections outside of the classroom are less likely to persist.

Rovai (2003) built upon the work of Tinto and other frameworks, such as Bean and Metzner (1985), to arrive at a "composite persistence model" (p. 307). Rovai's (2003) work is highly relevant in our current context as he added remote learning to the earlier models that focused on in-person courses and the type of community that can be built on a physical campus. His model, outlined in Figure 1, distinguishes the factors that influence persistence before versus after enrollment. Prior to admission, personal characteristics and skills are most indicative of the likelihood of success. Once enrolled, it is both internal and external factors that impact a student's decision to persist. Most of this applies to all learners, even those who are living on campus and came straight from high school (i.e., traditional), but nontraditional students must have additional traits, such as self-directedness, to fill the gap of the reduced interaction with instructors and other campus resources (Stephen et al., 2019, p. 307). The importance of this is compounded when students take courses remotely.

Figure 1

Rovai's Composite Persistence Model



Note. Reprinted from "In search of higher persistence rates in distance education online programs" by A. Rovai, 2003, *The Internet and Higher Education, 6*(1), 9.

The most consistent finding from studies that aim to validate theories on persistence is that more rigorous studies are needed (Lane & Miller, 2019; Permzadian & Credé, 2016; Sorensen & Donovan, 2017; Valentine et al., 2011). The Institute of Education Sciences (2021) examined more than 2,000 sources in an effort to identify strategies in adult education that improve learner outcomes. Their review included college transition programs but also looked more broadly at programs that aim to improve English literacy for non-native speakers and those that lead to a high school equivalency credential. Out of the 2,000 references, only 22 used a rigorous design to establish effectiveness (i.e., only 22 studies had a randomized controlled trial with low attrition). Two of these focused on college readiness courses, with one finding positive effects and the other no effect on student progress. The one study that did show positive results, Martin and Broadus (2013), was not able to determine if it was the college readiness classes themselves that proved effective or some of the other wraparound services (e.g., career counseling) that made the impact.

Lane and Miller (2019) drew similar conclusions around the lack of evidence for effective curriculum and strategies to improve persistence in their study of first-year seminars (FYS). As discussed above, they highlight that there are multiple approaches to what is referred to as FYS, from short orientations to semester-long credit bearing courses. The focus of the various FYS also varies, with some primarily aiming to improve academic skills (typically math and English) to those whose purpose is to introduce students to the college community and its services. Further complicating any comparison of these programs, the curricula varied widely among these programs. Given this, it was not possible to determine which components of these seminars are effective. Notably, they emphasized that while around 40% of community college students place into developmental courses, short orientations remain the predominate type of seminar, and they are not often made a required course (cite page). They suggest more reflection by each institution on whether required, academic-focused seminars would better serve these students.

Spitzig (2021) analyzed data from the Community College Survey of Student Engagement to examine the relationship between adult learners’ engagement and their retention at community colleges. With a population of 26,326 students aged 25 years or older, from 588 community colleges in 46 states, Spitzig (2021) found a positive relationship between student engagement and retention. The “odds of retention were 97.1% higher for a unit increase in academic challenge” (p. 103). The results showed “adult learners who are presented with academic challenge and feel supported by the college have the greatest likelihood of student retention” (p. 100). Students who perceive their program as of "high value and quality" put in more time and effort into their coursework (p. 104). This increased time leads to improved outcomes and a closer connection to the institution.

By contrast, students with weak time management skills or too many competing work or family obligations are not able to dedicate sufficient time to their coursework and do not perform as well. Spitzig (2021) also found that for a unit increase in student-faculty interaction, the odds of retention were 36.8% higher (p. 105). For examples of how to increase student-faculty interaction, Spitzig (2021) turns to Chickering and Gamson's (1987) "Seven Principles for Good Practices in Undergraduate Education." These principles include frequent interaction between faculty members and students, prompt feedback on assignments, and respecting "diverse talents and ways of learning" (Chickering & Gamson, 1987, p. 5). That said, due to the additional obligations of nontraditional students, they may not have sufficient time to engage with faculty and, therefore, may not benefit from this interaction. This can result in disconnectedness due to less engagement with faculty and peers.

Park and Choi (2009) conducted a study to determine what factors predict a college student's decision to drop out. The sample for their study was 147 adult learners who had taken the same online program at a large Midwestern university. Of these 147, 98 had completed their program and 49 dropped out. They found that internal factors, such as age, gender, and educational level, did not have a significant effect on a student's decision to drop out. Factors such as a lack of support from family, personal health issues, and financial problems were more likely to impact a leaner's persistence. This held true whether the student was taking in-person or online courses. Put another way, adult learners are "more likely to drop out of courses when they do not receive support from their family and/or organization while taking online courses, regardless of learners' academic preparation and aspiration" (p. 215). Their findings were consistent with conceptual theories, such as Rovai's (2003), that have been briefly described above. They also found that learners are more likely to persist when they are satisfied with the courses and find them relevant to their own lives. Again, this is consistent with the literature here as well as adult learning theory in general which will be touched on below.

Engle and Tinto (2008) focused their attention on the persistence of low-income, first-generation students. They found that any demographic or academic background characteristics had less influence on the likelihood a learner would persist than the experiences the students had after enrollment. By analyzing data from three U.S. Department of Education data sets, Engle and Tinto (2008) found that one of the most crucial distinguishing factors among low-income, first-generation students is related to their financial situation and how this translates to less engagement in academic and social experiences. Students are more likely to live off-campus and take classes part-time while working full time. Low-income, first-generation students report that their relationships with family and friends become strained as they “are perceived as changing and separating from them, which causes intense stress for these students” (Engle & Tinto, 2008, p. 21). Yet when on campus, these first-generation students, especially those from racial minority backgrounds, often describe feeling isolated and report having experienced discrimination. Engle and Tinto (2008) conclude that “key factors in retention for the graduates and persisters in the current study included high level of faculty-student interaction, integration of academic and social activities, opportunity for involvement, mentoring, leadership experiences, cultural and social support, and use of campus resources and student services” (p. 24).

Permzadian and Credé (2016) focus on the period of adjustment when students first enter college. They point to stress inoculation theory to address the relatively high rates of attrition within the first year of college. The theory states, “stress results when perceived environmental demands and uncertainties (i.e., stressors) exceed an individual’s perceived coping resources” (p. 281). This plays out in two phases. In phase one, participants are given accurate information about the upcoming new situation, its environment, and potential stressors. In phase two, participants are taught strategies to cope with these stressors. The closer this preparation matches the reality of the new environment, in this case, college, the more likely the participants will persist. Permzadian and Credé (2016) attempt to test this theory by reviewing existing research. After identifying sources with data on retention from first year to second year of college, they found 682 sources that met their criteria for an initial review. Of these, 195 examined the impact of FYS and were included in their statistical analysis. Their results show FYS had a small positive impact on retention in the first year. They qualify this finding by noting their credibility interval contained zero, which shows the results cannot be generalized (cite, page). This means that while some first-year seminars were effective, others had no effect at all. As with other researchers cited here, they ultimately conclude that further studies are needed.

It should be noted that much of this literature is consistent with the larger body of knowledge on adult learner theory. The principles of andragogy, developed by Knowles (1984) over fifty years ago, help explain the differences between young learners and adult learners. A student straight out of high school may persist even with an undeclared major, their external motivation (i.e., parents) enough to keep them engaged. By contrast, adults are more likely to be motivated internally. They must see a direct connection between what they are learning and its utility in their lives, ideally while in each course. In this context, an undeclared major would increase the likelihood of attrition. Surely, more insights could be gained by walking through the rest of Knowles's principles and the other frameworks in adult learning theory; however, the above provides enough foundation to analyze the situation at the Fund and make informed recommendations.

Results

Demographic data obtained from the Fund shows that most of its membership meets some or all of the criteria of those students in the U.S. population who are *least* likely to complete a college degree program. Per eligibility requirements, all Fund members work at least 24 hours per week. Most members work in low-wage positions, such as personal care aides and housekeeping (77%) versus the higher-wage titles, such as nursing and imaging (23%). The average age of Fund membership is 50, with 94% over the age of 25. In the U.S., age has been shown to correlate with completion rates; older students are less likely to complete courses. Given two students, one that is ten years younger is 1.5 times more likely to complete a three-credit course; if that gap is 20 years, the younger student is twice as likely to complete the course (Smith & Gluck, 2016, p. 23). The majority of Fund participants self-identify as non-white. More specifically, the Fund's population identifies as 45% black, 23% Hispanic, 22% white, 9% Asian, Pacific-Islander, Native American. More data exists, such as Fund participants' education level when they enter these programs and their number of dependents, but this was unavailable at the time of writing.

When asked about the program objectives, the director of the non-credit programs spoke generally about passing the high school equivalency, getting into college, and passing courses. She also discussed program goals of developing independent learners who advocate for themselves and their patients. She did not have specific targets for pass rates, number of students who would go on to college each year, or the rate at which they would persist, nor was there data on any of these outcomes. The director does plan on pursuing this, but on top of the additional workload brought on by the pandemic, the entire Fund had been restructured so all of these programs only recently fell under her domain.

Fund staff recently developed a set of standards for each level of the Prep Academy. College readiness content falls into level 4 (see Appendix C). This is a semester-long course (15 weeks) that is primarily focused on academics (math, English, science, etc.). It does include a "soft skills" standard that has topics such as time management and note-taking.

Two of the four staff interviewed mentioned pairing first-year students with those who are matriculated. All mentioned the need for more classes that target digital literacy skills, and the associate director of the Prep Academy added that there was a need for devices as well as a help desk to troubleshoot issues the learners come across. That is, in addition to not having the basic skill set to use computers, many students do not have computers or reliable Internet access. She also had several specific suggestions for the program, such as including mandatory pairing with tutors. She suggested the curriculum include how to use existing tools to improve time management (e.g., how to use the calendar on their phones), word processing skills, and how to apply for college.

Notably, the associate director would also like to hire someone to assess students for learning disabilities. She said this was critical because there are many adult learners with undiagnosed learning disabilities. She also said the few who did admit to having learning disabilities had been reluctant to disclose them due to stigma; however, accommodations such as untimed tests would improve their outcomes. Unfortunately, cost prohibits the Fund from paying for these types of assessments, and a local community resource who used to conduct them for free closed in 2020.

The director of the Core Curriculum Program recently conducted some research around persistence. He looked at the cohort who completed the program in 2017 and had his staff check their current status. He found that out of 568 students who completed the program in 2017, as of January 1, 2022, 404 had enrolled in a college program. Of those 404, 89% were actively enrolled in college, 7% had graduated, and 4% had dropped out. The director had only recently commissioned this report so there was little relevant analysis, and the raw data was not available. He did note that nearly half of the students were unable to matriculate into a program even after going through 24 credits of the Core Curriculum Program, and non-native English speakers made up 44% of this population.

Discussion

The Fund would like to help as many members as possible achieve their personal goals, whether that is improving their English, earning a high school equivalency credential, or earning a college degree. Ideally, we could look at what the Fund offers and identify a gap between these programs and what research has shown to be effective in improving learner outcomes. As we have seen, there is a lack of rigorous studies on which curricula are effective or even which support services ought to be included. However, there are trends in the research, consistent with the larger body of research on adult learners, which can inform recommendations to improve upon the Fund's already robust programs.

Track outcomes & the data should be readily available

While the Fund does not *need* to collect extensive data on student outcomes, it still should. It is possible that participants of the Core Curriculum Program have better outcomes than students who take all of their courses outside of the cohort, but we have no way of knowing this. Consider the results we do have, which show 89% of the 2017 cohort are still enrolled and another 7% have graduated. On the surface, this might seem to defy the odds of the other research discussed in this paper. However, these numbers do not show the whole picture as 29% of the students who completed the Core Curriculum Program never enrolled in college (164 of the 568 never enrolled in college). That is a significant number, given these potential students had already completed 24 credits. Learning more about these students and why they did not enroll might give insight as to where an intervention would have an impact. It is possible, for example, that these students would have benefited if stress inoculation strategies had been integrated into the Core Curriculum Program or they had been paired with a matriculated student in their intended program of study.

There is also an opportunity at the Fund to more closely monitor students who are using their tuition assistance outside of the programs discussed here. It should be possible to set up triggers in the Fund's database so that when a student's GPA drops below 2.3, for example, a counselor is notified. The counselor can then reach out to learn more about why the student is struggling and offer tutoring support or work with them on ways to address any other obstacles they are facing.

Presently, there is a shortage of Fund staff who know how to pull reports out of their database. Further, there is no central location to view reports that have been retrieved or the research results such as the one described above that tracked the 2017 Core Curriculum students. Despite the importance and relevance of that research, the director of the non-credit program was unaware it existed. While training more staff on how to pull detailed reports might be a worthwhile endeavor, in the near term a simple way to share the existing reports and research is to create a SharePoint site with this information and notify all staff of its location.

Pre-college programs need a thorough intake process

The current intake process starts with the member requesting to enroll in a program and then they are assessed to identify which level in that program would best suit their needs. A much more robust intake process would help learners identify challenges they face and explore ways to address them before their successful completion is threatened. In addition to assessing reading, writing, and math proficiency, digital literacy should be assessed. The students should also be asked what hardware they have at home and if they have reliable Internet access. Ideally, counselors also discuss the member’s commitments outside of school, such as second jobs and taking care of family members. Fund staff should be trained for this counseling and understand that identifying these common risk factors and ways to address them early on will increase the likelihood members will persist.

Goal setting should also be part of the intake process, drilling down to the specific career the student would like to obtain. Some members will be more certain of their plans, while others may only know they want to move beyond their current position. An indication should flag students in this latter group in the Fund database and case notes should be tied to their account. Goal setting should be revisited throughout students’ time in Fund-sponsored programs, especially for those who are uncertain of their career goals. Where possible, one Fund staff should be assigned to work with these students throughout their academic career. Due to varying caseloads and inevitable turnover - especially considering how long it takes for nontraditional students to finish a program - the flags and case notes will allow for smooth handoffs and prevent members falling through the cracks when students are reassigned.

Mandatory college orientation and Core Curriculum enrollment

The Fund should consider developing a mandatory college orientation for all members who participate in the tuition assistance program. Exemptions could be made for students who attend colleges that require first-year seminars as part of their incoming students' first semester. Separately, the Fund should consider *requiring* students who place into developmental math or English courses to take those courses as part of the Fund's Core Curriculum Program. Currently, this is an optional program offered to members.

Considering the importance of learner engagement with peers and instructors, the Fund should consider adapting the Community of Inquiry model when developing the curricula for their programs. This approach considers the extent to which social presence (learner-to-learner), cognitive presence (learner-to-content), and teaching presence (learner-to-instructor) are accounted for (Garrison et al., 1999). It is the learner-to-learner and learner-to-instructor interaction that is of particular importance here as the aim will be to set the stage for a positive experience with meaningful interactions with peers and the instructor. Heading into the college environment, the student will have had some experience with these types of relationships. This is particularly important for nontraditional students as many of them have had little exposure to the types of activities and group projects assigned in today's college courses. The more comfortable they become with the increased engagement with peers and faculty, the more likely they will be to continue this high level of participation in the college setting.

The mandatory orientation would aim to get ahead of the many issues nontraditional learners face. It is critical for students to understand how their financial situation and outside obligations impact their likelihood of success. Grants and the tuition assistance benefit might allow them to take courses, but working full time reduces their time engaging with their instructors, peers, and the rest of the college community.

Short workshops on notetaking should be included as well as time management activities. These are currently in the Core Curriculum Program, and they should also be included in the orientation suggested here. College-readiness programs often include activities to help students get organized, and while these might offer some value, Stephen et al. (2020) found that it is more critical to have actual communication with family about the upcoming time commitment and, when possible, to have this discussion with their managers at work. As Park and Choi (2009) note, family and organizational support are significant predictors of a learners' decision to drop out or persist (p. 216). Related to this, the orientation should manage expectations to provide students a clear picture of what the college experience will look like. Campus visits and sitting in on in-person or online classes, should be part of this process of managing expectations.

The academic courses for those students who place into developmental courses should be competency-based, if possible. This model is practiced by some colleges and allows students to progress through these skill-building courses more quickly than time-based, semester-long courses. For the college readiness course held in Moodle, the original focus of this paper, an objective should be to develop habits that lead to student success. For example, login frequency should be tracked, and students should be expected to login several times per week throughout the semester as both the regularity and the frequency of course access can improve a student's performance (Il-Hyun et al., 2015).

An objective of the college readiness curriculum should be to remove stigmas around learning disabilities or requesting help in general. Tutoring services are available at the Fund, both in-person and in partnership with Tutor.com. For students who do not feel comfortable meeting in-person, the Tutor.com option would be good fit as it allows for a degree of anonymity.

Syllabi for the college readiness program and all other Fund courses should have an accessibility statement informing students of the American with Disabilities Act (ADA). This will give the instructor an opportunity to discuss different disabilities, accommodations, and how to go about getting assessed.

College advising should be catered to the nontraditional student

There are some recommendations advisors could make that would increase students' likelihood to persist. For example, students should be encouraged to take co-requisites instead of standalone remedial courses. An example of this is if a student were to place into developmental reading, instead of taking that course by itself, the student would take a specially designed sociology course that incorporates the remedial curriculum into the sociology course. This model has been proven to be highly effective. After corequisite courses were introduced at Tennessee community colleges, the number of students who passed their college-level math course quadrupled (Whinnery & Pompelia, 2019).

Similarly, advisers should discuss different types of semesters that some colleges offer, such as competency-based vs. time-based courses, or eight-week semesters instead of 15-week courses. Advisors should also discuss alternative programs like UMass Amherst's University Without Walls, which accepts more transfer credits than most colleges and includes portfolio projects that allow students to get credit for work experience. There are advantages and disadvantages to these types of programs, and this should all be discussed with the student who may only be aware of the traditional, 15-week semester norm.

Establish a mentoring program

There are several models the Fund could pursue to connect students in the non-credit programs and Core Curriculum Program with students who are matriculated. In addition to transferring valuable knowledge to the mentee, a mentorship program would be another opportunity to increase peer engagement and the connection to the college community. The Fund already has a mentor training curriculum from its work with apprenticeship programs that could be adapted to provide a short training to the mentors.

Conclusion

Understanding why nontraditional students are less likely to complete college programs and how to improve that situation is complex. There are many interrelated factors that increase the risk of attrition for nontraditional students at one end, and there are few controlled studies that have shown what improves outcomes at the other end. We do know that increasing a student's interactions with peers and faculty improves persistence. Indeed, several sources cited here conclude that social integration is more important than a student's background characteristics as an indicator of a student's likelihood to persist. Creating opportunities for meaningful interactions should, therefore, be at the forefront in the course design of the Fund's classes, and these findings should be shared with instructors during professional development trainings. Recommendations such as creating a mentor program should be thought of as essential, like math preparation, rather than an optional afterthought.

While the Education Fund may not be accountable to stakeholders in the same way an adult education center or college is to theirs, the stakes themselves are very real. The majority of Fund members earn poverty level wages; a college degree would have a profound impact on their lives and that of their families. We know that Americans with a college degree earn over $1,000,000 more of the course of their lives than those with only a high school diploma (Carnevale, 2021). There is also a striking difference between those with versus those without degrees when it comes to employment rates, especially when there are economic downturns. For example, the unemployment rate was 20% higher for Americans without a degree during the COVID pandemic (United States Bureau of Labor Statistics, 2022b). Considering the profound impact a college degree would have on these members' lives, collecting data around Fund outcomes is critical regardless of whether or not it needs to be reported to external stakeholders.

In addition to benefiting these union members, the Fund could offer its findings to the larger community working on improving nontraditional students' persistence. There will likely be a large influx of nontraditional college students in the near future, another negative result of the COVID-19 pandemic. In 2020 alone, an additional 500,000 high school students had dropped out (United States Bureau of Labor Statistics, 2022a).

Ethical concerns are among the many challenges with designing controlled studies on nontraditional college students' persistence. The Education Fund already has data on thousands of adult learners which could serve as controls. In 2021 alone, 7,918 Fund members took credit-bearing college courses. The subset that attended the Core Curriculum Program (over 500) is a much larger sample size than some of the other studies that have been conducted on this subject. For example, Smith & Gluck's (2016) five-year longitudinal study included 11 college readiness programs across six states, but there was only a total of 227 participants.

Remarkably, an additional 2,901 Fund members took foundational classes in 2021. Combined, that is close to 10,000 nontraditional students participating in Fund-sponsored credit and non-credit programs. The Fund has a unique opportunity to test multiple college readiness approaches. Sharing the results with the larger community working in this field could help improve persistence rates throughout the U.S.

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Appendix A

The following outline was used to structure the first interview.

1. Explain my research, looking for:
    a) What works in general (childcare, counseling, etc.)
    b) What curriculum specifically is effective
    c) Overall stats (e.g., x% of adult working Latinos who return to college do not complete)

2. From her, looking for within the Fund
    a) Catalog what is offered (any gaps) - broadly (e.g., childcare, transport)
    b) Objectives of the college readiness programs? Number enrolled? Retained? Their grades?
    c) What would she like to offer or expand upon if she had additional resources? (What gap does she see, given her expertise in adult education and considering what she knows we already offer?)
    d) Is there any data/studies on completion rates? Retention? Comparing members who have vs haven't been through a Fund program.

3. Who else should I talk to?

4. Who should I contact for demographic data?

Appendix B

Risk Factors Impacting College Persistence and Success

Background Characteristics	
Older student	First generation college student
History of academic failure	Minority group
Academic unpreparedness	Family issues; parenting deficiencies
Socio-economic status	Sibling dropped out of high school
Physically challenged	Financial constraints; poverty
Emotionally impaired; domestic violence	Non-supportive home environment
Cultural/language barriers	Homelessness/Transiency (migrant-worker families)
Technology skill limitation	Incarceration
Study behaviors	Lack knowledge of college admissions/matriculation
Individual Characteristics	
Task values (interest, importance, utility)	Serious health or substance abuse issues
Unrealistic goals; Lack of goal clarity	Lack of school engagement
Personal autonomy or independence	Limited communication skills
Self-confidence (insecure public speaker)	Emotional, psychological, or behavioral problems
Low level of self-respect or self-esteem	Passive aggressive attitude
Weak self-concept (judgmental; afraid of failure)	Lack of strong role models/mentors
Social competence; Limited key social skills	Lack self-discipline
Self-efficacy	Low academic demand expectation (fixed mindset; unchallenged)
Lack of motivation for performing well	Teacher pleaser
Lack of strong support group	Childcare responsibility
Learning or Physical Disabilities (diagnosed or undiagnosed)	Negative social network (friends) or cultural norms
Underprepared for current academic challenges (memorization; knowledge transfer; metacognition)	Lack understanding of available financial resources
	Procrastination
Environmental Factors	
Transportation time and costs	Internships & field placements
College financial cost	Negative peer culture (ostracizes successful students)
Study environment	Racism or Sexism
Student support services (access & under-utilization)	College evaluation culture bias; poor academic fit
Advisor advice & support	No individual guidance or mentoring
Course offerings (remedial; flexible)	Broken college relationships
Adequate facilities	Workforce issues (short or long term)

Note. Reprinted from “Identifying at-risk factors that affect college student success” by B. Horton, 2015, *International Journal of Process Education, 7*(1), 86.

Appendix C

Prep Academy 4: College and Career Readiness Standards

Overview

The following College and Career Readiness Standards and accompanying Learning Outcomes provide guidance to administrators and instructors serving students in the Prep Academy Level 4 program. These standards will inform the development of curricula, the content of instruction, the assignments and assessments while establishing clearer expectations for students. The standards will assist in mapping and coordinating the knowledge students need for a successful transition to higher education and career advancement opportunities.

Standards

1. Communication Skills, Arts & Humanities

   Students will be able to read, write, listen and speak critically and effectively. Students will be able to develop knowledge, understanding, and appreciation of works of art, music, theatre and literature through in-depth analysis and critique.

2. Quantitative Reasoning

   Students will be able to use numerical skills, and foundational concepts and methods to solve mathematical problems.

3. Scientific Reasoning

   Students will be able to apply the concepts and methods of the natural sciences.

4. Social and Behavioral Sciences

   Students will be able to apply the concepts and methods of the social sciences.

5. Information & Technology Literacy

   Students will be able to collect, evaluate and interpret information and effectively use information technologies.

6. Soft Skills

   Students will be able to develop interpersonal skills and habits that promote academic success.

   Students will be able to make informed choices based on an understanding of human diversity, multicultural awareness, social responsibility and personal principles.

STANDARD 1: COMMUNICATION SKILLS, ARTS & HUMANITIES

The English requirement will be achieved by utilizing critical thinking models to prepare students for university-level study. Students will master literacy skills for classes in all subjects, and acquire and use knowledge to read, write, listen, and speak critically. This area can include scientific texts, arts and humanities readings, healthcare topics and social justice issues to contextualize the learning.

Learning Outcomes:

Close Reading and Critical Thinking

- Identify and critically evaluate the intellectual content, both explicit and implied, of what they read and see.
- Recognize and evaluate rhetorical strategies, unstated assumptions, and hidden subtexts. Effectively use rhetorical strategies in their own writing.
- Examine a variety of literary genres such as essays, fiction, poetry, journalism, and speeches; and, branch out into visual forms such as paintings, graphic novels, and film.
- Deliver oral presentations to the class, thereby honing public speaking and presentation skills.

Writing and Research Skills

- Learn the techniques essential for successful academic writing, with emphasis placed on argumentation and organization. Students will acquire strong writing through discussion of argument structure, essay organization, style, and mechanics.
- Engage in creative activities and discussions aimed at strengthening analytic and rhetorical skills.
- Critically evaluate and synthesize texts and other forms of expression in the arts and humanities.
- Demonstrate an understanding of the reciprocal relationship between (1) social and cultural factors in their historical context and (2) intellectual inquiry and creative expression within the arts and/or the humanities.
- Represent and critically respond to multiple points of view on cultural issues in different historical, social, and/or cultural contexts.

- Communicate effectively in speech and writing, and present citations appropriate to the discipline, using primary and/or secondary materials as evidence in interpretive arguments.

STANDARD 2: QUANTITATIVE REASONING

Students will be able to use measurable skills and the concepts and methods of mathematics to solve problems. They will learn how to apply simple mathematical methods to the solution of real-world problems and develop proficiency in quantitative thinking and analysis to engage with coursework in other disciplines.

Learning Outcomes:

- Interpret mathematical models such as formulas, graphs, tables, and schematics, and draw inferences from them.
- Represent mathematical information symbolically, visually, numerically, and verbally.
- Use arithmetical, algebraic, geometric and statistical methods to solve problems.
- Estimate and check answers to mathematical problems in order to determine reasonableness, identify alternatives, and select optimal results.
- Recognize that mathematical and statistical methods have limits.

STANDARD 3: SCIENTIFIC REASONING

Students will be able to apply the concepts and methods of the natural sciences. Science emphasizes biology, chemistry, and physics because these subjects are preparatory to university-level study.

Learning Outcomes:

- Explain the methods of scientific inquiry that lead to the acquisition of knowledge. Such methods include observations, testable hypotheses, logical inferences, experimental design, data acquisition, interpretation, and reproducible outcomes.
- Apply scientific methods to investigate real-world phenomena, and routine and novel problems. This includes data acquisition and evaluation, and prediction.

- Represent scientific data symbolically, graphically, numerically, and verbally.
- Interpret scientific information and draw logical inferences from representations such as formulas, equations, graphs, tables, and schematics.
- Evaluate the results obtained from scientific methods for accuracy and/or reasonableness.
- Emphasize Anatomy & Physiology concepts for TEAS test prep and pre-nursing programs.

STANDARD 4: SOCIAL/BEHAVIORAL SCIENCES

Students will be able to apply the concepts and methods of the social sciences.

Learning Outcomes:

- Critically assess the literature related to social and behavioral aspects of health.
- Explain major theories, trends, and debates in the social and behavioral sciences literature regarding health.
- Assess the means by which structural bias & social inequities undermine health and create challenges to achieving health equity at the behavioral, community & societal levels (*Understanding Social Determinants of Health*).
- Apply the methods and analytic tools of social and behavioral science to design, implement, and analyze evaluation or research studies.
- Apply ethical principles to public health research and evaluation.
- Disseminate research findings to diverse audiences.

STANDARD 5: INFORMATION & TECHNOLOGY LITERACY

Students will be able to collect, evaluate and interpret information and effectively use information technologies.

Learning Outcomes: Students will acquire the following skills …

- Digital Literacy
- Document Writing and Editing

- College Application Submission & Registration
- Presentation (PowerPoint)
- Photo Editing and Graphic Design
- Internet Research and Online Learning
- Social Media (including evaluation and discernment of credibility of sources)
- Learning Management Systems (e.g., Blackboard)
- Technology Connectivity & Troubleshooting

STANDARD 6: SOFT SKILLS

Students will be able to develop interpersonal skills and habits that promote academic success. Students will be able to make informed choices based on an understanding of human diversity, multicultural awareness, social responsibility and personal principles.

Learning Outcomes:

- TIME MANAGEMENT

  Being a working adult enrolled in school requires clear goal setting and active planning to balance work, school and family life. Several hours of studying and preparation are expected for each class, making it critical to prepare a weekly schedule that includes time for: attending class, studying, working, meals, chores, and leisure activities.

- NOTE-TAKING & STUDY SKILLS

  Even some of the best students have not always developed good study skills. Knowing how to read a textbook, take notes in class, use the library and take multiple choice tests are all areas that will help you be more successful in the classroom.

- STRESS MANAGEMENT & SELF-CARE SKILLS

  Regular exercise, adequate rest, good nutrition, prayer and/or meditation are all suggested ways of engaging in self-care that reduces stress. Finding ways to increase coping resources will decrease the stressors that life will throw your way.

  Develop healthy routines that include: a balanced diet, physical exercise, adequate sleep, relaxation techniques and good hygiene, all which impact classroom performance, improve mood, and assist with stress management.

- EDUCATIONAL ETHICS

  By understanding human diversity, multicultural awareness and exploring the intersection of personal values and social responsibility, students will be better prepared to navigate their academic experience.

  - HONESTY, INTEGRITY AND PERSEVERANCE

    Students develop academic integrity by incorporating personal values and ethics into every aspect of the college experience. Part of the path of integrity is learning how to stay committed to goals and avoid academic missteps, including plagiarism.

  - ADVOCATION & ASSERTIVENESS SKILLS

    An essential part of advocating for yourself is knowing when to ask for help. Seeking help when you need it is a sign of strength and integrity, not an indication of failure. Assertiveness skills are helpful in family communication, study groups, teams, and conflict resolution. They also involve learning and practicing healthy boundaries. The ability to speak up for oneself in an assertive manner, that is neither aggressive nor passive, is an invaluable skill.

  - DECORUM

    To meaningfully participate in classes, students must make informed decisions that foster an orderly learning environment. In both traditional and virtual instruction, personal presentation and focus on the lesson are expected. Students should communicate with professors and classmates using tools (raised hands, virtual chat functions, reactions, etc.), that contribute to productive interactions and engagement.