Running head: ENGAGEMENT OF ADULT LEARNERS

Barriers in Returning to Learning: Engagement and Support of Adult Learners

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Abstract

Adult learners are a growing population in the U.S. postsecondary education system that experience distinct barriers to academic success. However, higher education institutions continue to create and adhere to policies that favor traditional college students. Given that adult learners are becoming more common across the higher education landscape, it is important to better understand their experiences to ensure this population is supported to success. This study uses data from the 2013 and 2014 administrations of the National Survey of Student Engagement to identify the characteristics of today's adult learners and assess how their engagement differs from traditional-aged students. We found that adult learners are more likely to take all of their classes online, begin their education at another institution, and enroll part-time. Compared to their traditional-aged peers, adult learners are more engaged academically, interact less with their peers and faculty, have positive perceptions of teaching practices and interactions with others, and find their campus to be less supportive

Adult learners are a growing population in the U.S. postsecondary education system that experience distinct barriers to academic success. However, higher education institutions continue to create and adhere to policies that favor traditional college students. Given that adult learners are becoming more common across the higher education landscape, it is important to better understand their experiences to ensure this population is supported to success.

Who are Adult Learners?

College students between the ages of 18 and 24 years old are often considered traditional-aged students and make up the majority of students enrolling in postsecondary education—approximately 58 percent of total enrollment at degree-granting institutions in 2012 (U.S. Department of Education, 2013). However, older students, often referred to as adult learners or students, over the age of 24 or over the age of 21 at first entry, are a rapidly growing population (Compton, Cox, & Laanan, 2006; Fairchild, 2003; Kazis, Callahan, Davidson, McLeod, Bosworth, Choitz, & Hoops, 2007, Lundberg, 2003). Furthermore, it is expected that enrollment of students aged 24-29 will increase at a faster rate than traditional-aged students through 2020 (Hussar & Bailey, 2011). In 2007, learners over the age of 24 comprised 44 percent of all postsecondary students, though higher education institutions, both at the two- and four-year level, continue to create and adhere to policies that privilege or favor the traditional-aged college student; 18-21 years old and financially dependent (Kazis et al., 2007). Often adult learners are interchangeably referred to as nontraditional students and these two populations of students can share some overlapping characteristics (Compton et al., 2006). According to the National Center for Education Statistics (NCES), nontraditional students exhibit at least one of the following characteristics: delayed enrollment after high school, part-time enrollment in education, full-time

employment, independent financially from parents, caring for dependents, or did not complete high school (U.S. Department of Education, 2002).

Needs and Constraints of the Adult Learner

Even though adult learners can be classified as nontraditional students by NCES's 2002 definition, Compton et al. (2006) claim that adult learners are a distinct student population, with unique needs inside and outside of the classroom on the college campus. Knowles' (1984) identified four major principles that characterize this student population:

> a. They are self-directed, take responsibility for their own actions, and resist having information arbitrarily imposed on them.
>
> b. They have an extensive depth of experience, which serves as a critical component in the foundation of their self-identity.
>
> c. They are ready to learn. As most adult learners return to college voluntarily, they are likely to actively engage in the learning process.
>
> d. They are task motivated. Adult students returning to college attend for a specific goal and the primary component of their motivational drive tends to be internal (as cited by Kenner & Weinerman, 2011, pp. 88-89)

Knowles' work on adult learners continues to be the predominant reference and theoretical framework for studies concerning this subpopulation of nontraditional undergraduate students, and is reflected in Compton et al.'s (2006) characterization of this student population. They purport that adult students deserve unique attention given they are more likely to have focused educational goals, to consider themselves workers as opposed to students, or to be pursuing a vocational credential. Research exploring the experiences of adult learners indicates that these students are more likely to attend school part-time (Kasworm, 2003), live off-campus with

academic and social communities existing outside of the campus community (Bradley & Graham, 2000), and given the likelihood of managing multiple responsibilities such as full-time employment and caring for dependents, are quite possibly the student subpopulation that is most time-limited (Lundberg, 2003).

In a study specifically examining nontraditional undergraduate students, how adult learners are often categorized, Choy (2002) finds that students with several nontraditional characteristics, defined as risk factors, report that work responsibilities negatively impact grades. Moreover, Choy indicates that nontraditional students with at least two risk factors, like financial independence or part-time enrollment, meet their objective of bachelor-degree completion at a rate of 16.9 percent, compared to 53.9 percent of traditional students with the same goal. Silva, Calahan, and Lacireno-Paquet (1998) find, consistently, that four specific factors can serve as barriers to further education for adult learners: lack of time, family responsibilities, course location and time, and cost of classes. These constraints can directly and indirectly impact time to degree and the ability for a student to persist, which is especially true for those adult learners who elect to attend school part-time while they hold full-time employment (Kazis et al., 2007). For these reasons, it is valuable to re-consider the adult learner in the current postsecondary education environment, to ensure that the needs of this unique student population are met in order to facilitate optimal learning and completion of educational goals.

Educational Barriers for Adult Learners

Adult learning theory has been separated from traditional pedagogy and recognizes these learners' unique circumstances and how these may impact experiences inside and outside of the classroom (Kenner & Weinerman, 2011). Addressing the experiences of adult learners enrolled in college, given their unique characteristics of and increased constraints on their time, has

become increasingly necessary and is reflected in various teaching and learning literature. Research on adult learners in the classroom addresses not only the unique barriers they may encounter (Choy, 2002; Kasworm, 2008; Kazis et al, 2007; Jameson & Fusco, 2014; Lundberg, 2003; Silva, Calahan, & Lacireno-Paquet, 1998), but also student motivation and interests (Bye, Pushkar, & Conway, 2007; Donahue & Wong, 1997) and strategies and methods of instruction to assist the adult learner (Ausburn, 2011; Kazis et al., 2007; Kenner & Weinerman, 2011).

On top of the more tangible barriers such as time constraints and costs, studies highlight intrapersonal characteristics that may uniquely impact the success of adult learners (Bye, Pushkar, & Conway, 2007; Donahue & Wong, 1997; Jameson & Fusco, 2014). In a study examining higher education students' anxieties, self-concept, and efficacy related to math, Jameson and Fusco (2014) find that adult learners experience negative self-perceptions that may serve as additional barriers to their learning. Furthermore, they find that anxiety increased with age, while efficacy decreased, perhaps highlighting decreased levels of confidence of older students who may be the minority in a learning environment mainly composed of "younger, more recently educated, and more technologically savvy classmates" (Jameson & Fusco, 2014. p. 314). Bye, Pushkar, and Conway (1997) explore motivation and interests of traditional and nontraditional undergraduate students, with specific attention to older students, and find that older students report greater intrinsic motivation to learn than younger, traditional students. However, this may not yield an increased confidence in the classroom as indicated in Jameson and Fusco's (2014) study.

Several strategies to help adult learners succeed inside and outside of the classroom have been suggested as components of studies focused on the experiences of this population of undergraduate students (Ausburn, 2011; Lundberg, 2003; Kenner & Weinerman, 2011; Silva et

al., 1998). Kenner and Weinerman (2011) urge developmental educators to consider that adult learners tend to be more goal-oriented and self-directed when introducing new learning strategies. They suggest framing new strategies in ways that encourage students to realize the personal and professional utility and benefits of the technique or skill. Given that many adult learners may experience time constraints associated with the multiple roles they have, they often participate in blended or hybrid learning environments that include online technologies (Ausburn, 2011). Creating and improving blended or online courses are strategies that may directly benefit adult learners; however, Ausburn (2011) specifically identifies ways that e-learning environments can be improved for adult learners. Ausburn shares that adult learners highly value effective communication between themselves, faculty, and peers; therefore instructors could enhance their experience by virtual availability and approachability. Adult learners within online learning environments also value frequent and explicit communication about course-related matter; therefore, Ausburn suggests faculty may better meet these students' needs with a more hands-on approach to assignment instructions and course updates.

Finally, Lundberg's (2003) proposed methods to enhance collegiate experiences of adult learners occur outside of the classroom, and are reflective of the assertion that higher education administration and student affairs professionals' primary charge is to enhance student learning (American College Student Personnel, 1994). Lundberg suggests that this can be achieved by a commitment to improving the quality of relationships between adult learners and student affairs professionals and the facilitation of effective "educationally related peer relationships" (p. 682).

Educational Engagement

None of the current theories or suggestions for enhancing adult student learning focus broadly on their engagement in effective educational practices. According to Astin's theory of

student involvement, student gains and success in college are directly proportional to their involvement in effective educational activities (1984, 1993). Further, this involvement requires a significant investment of energy on the part of the student. Pace (1980) echoes this idea writing that "…learning and development requires an investment of time and effort by the student. What students can gain from the variety of events depends on the amount, scope, and quality of their engagement" (p. 127). Coupling these notions of involvement with Chickering and Gamson's (1987) principles for good practice in undergraduate education (student-centered practices that encourage campus climates, services, and experiences that foster student involvement), student engagement can be thought of in two complementary perspectives. First, engagement can be thought of as the amount of time and effort students spend participating in educationally purposeful activities. Second, engagement can be viewed as the institutional resources and opportunities that facilitate student participation in meaningful learning activities. Research has linked student engagement to a wide variety of additional measures of student success. Generally, engagement in purposeful activities is positively related to such outcomes as GPA (Carini, Kuh, & Klein, 2006; Kuh, Cruce, Shoup, Kinzie, & Gonyea, 2007), critical thinking (Carini, Kuh, & Klein, 2006; Pascarella, Seifert, & Blaich, 2010), and retention (Kuh, Cruce, Shoup, Kinzie, & Gonyea, 2007; Kuh, 2008).

Although student engagement can take many forms, such as collaborative learning or student-faculty interaction, this study focuses on several aspects of academic engagement and engaging interactions with peers, faculty, and their campus. Deep approaches to learning such as forms of higher-order learning (application, synthesis, evaluation, etc.) and reflective and integrative learning can lead to a wide variety of positive learning outcomes. Student participation in deep approaches to learning is related to retention (Nelson Laird, Shoup, & Kuh,

2008), student motivation (Merrill, 2002), students' ability to better make connections with previous learning (Nelson Laird, Shoup, & Kuh, 2008; Merrill, 2002), and feeling more satisfied with their learning (Frick, Chadha, Watson, Wang & Green, 2008). Using active learning strategies are another way students engage to increase their comprehension of material (McKeachie, Pintrich & Lin, 1985) and improve their grades (Isaacson & Fujita, 2006; Young & Fry, 2008; Everson & Tobias, 1998; Hall, 2001). The ability to process and understand quantitative information, or quantitative reasoning, has become an increasingly important outcome for college graduates to successfully function in today's society (Shavelson, 2008); regardless of field of study in college, professionals need to be able to analyze problems and interpret quantitative information in the workplace (Wilkins, 2000).

Working with peers and faculty is another important aspect of student engagement. Working collaboratively with peers is related to higher achievement (Cabrera, Crissman, Bernal, Nora, Terenzini, & Pascarella, 2002), increased problem solving and communication skills (Terenzini, Cabrera, Colbeck, Parente, & Bjorklund, 2001), and persistence through college (Tinto, 1997). Meaningful interactions with diverse others can impact students' identity development (Astin, 1993), improve critical thinking (Antonio, Chang, Hakuta, Kenny, Levin, & Milem, 2004), reduce racial bias (Denson, 2009), and increase participation in civic engagement and leadership activities (Bowman, 2011). Quality interactions with faculty contribute to cognitive development, student satisfaction, retention (Lau, 2003; Pascarella & Terenzini, 2005), and increased academic performance (Kim & Sax, 2009). Faculty who display clear and effective teaching practices also contribute to student achievement, satisfaction, and persistence (Hativa, 1998; Pascarella & Terenzini, 2005; Chesebro & McCroskey, 2001; Lambert, Rocconi, Ribera, Miller, & Dong, 2012). Students' overall interactions with people at their institution,

including other students, faculty, staff, and administrative personnel is also related to academic achievement, social development, and critical thinking (Umbach & Wawrzynski, 2005; Whitt, Edison, Pascarella, Nora, & Terenzini, 1999). Lastly, a students' overall perception of a supportive campus environment is linked to retention, satisfaction, and increased student engagement in educational activities (Kuh, 1993; Kuh & Hall, 1993), which often is related to interactions with individuals at an institution.

Purpose of the Study

Given the rapid growth of adult learners **(**Compton, Cox, & Laanan, 2006; Fairchild, 2003; Kazis, Callahan, Davidson, McLeod, Bosworth, Choitz, & Hoops, 2007, Lundberg, 2003**)** and the lack of knowledge of their engagement in educationally effective practices, it is important to better understand the characteristics of this population and their educational experiences in light of the unique barriers they face in pursuing higher education.

The purpose of this study was twofold. First, we sought to document the characteristics of today's adult learners. Specifically, we examined what characteristics are typical of these students, aside from their age, as well as at what types of institutions they are enrolled. The second purpose of this study was to expand our understanding of the engagement of today's adult learners. This includes both academic engagement and how well these learners interact with other students and faculty on campus. Therefore, three research questions guided the study:

1. What characteristics distinguish adult learners from their traditional-aged peers?
2. How do today's adult learners engage academically?
3. How do today's adult learners interact with their traditional-aged peers, their faculty, and their campus?

Methods

Data Source and Sample

The data for this study are derived from the 2013 and 2014 administrations of the National Survey of Student Engagement (NSSE), an annual survey of first-year and senior students that measures students' participation in educational experiences that prior research connects to valued outcomes such as student satisfaction and retention (Chickering & Gamson, 1987; Kuh, 2001, 2003; Pascarella & Terenzini, 2005). Our study is focused on incoming, first-year adult learners; the senior class is comprised mostly of students who have already succeeded in overcoming their educational barriers. NSSE administers the survey to participating institutions and students respond to an online version of the survey. The sample for the current study consists of 146,072 first-year students from 977 U.S. institutions who participated in NSSE's 2013 or 2014 administrations. For the purposes of this study, adult learners are defined as first-year students who are 21 or older based on the age they provided at the time of survey participation. In this study 12,336 (8%) of the first-year students are identified as adult learners.

Table 1 provides an overview of the sample's demographic characteristics by adult learner status. Of the overall sample, approximately 66% were identified by their institution as female. About two-thirds (65%) of students identified as White, with 7% identifying as Black or African American, 7% Asian, 8% Hispanic or Latino, and less than 1% American Indian or Alaska Native. Nearly all (96%) were enrolled full-time. In addition, 41% were identified as first-generation college students (neither parent/guardian had earned a bachelor's degree), and 30% indicated the highest degree they expected to attain was a bachelor's degree. Some (9%) indicated they started their college education elsewhere, 13% had taken at least some classes online, and 70% lived on or near campus.

Table 2 provides an overview of the sample's institutional characteristics by adult learner status. Of the overall sample, 44% students attended private colleges or universities, and 1% attended mostly online institutions. Twenty percent were at bachelor's-granting colleges, 42% at master's colleges and universities, and 35% attended doctoral universities. Eighty-seven percent of respondents attended institutions with a traditional semester calendar system. Forty-two percent of respondents attended institutions with over 10,000 undergraduate students, 20% attended institutions with between 5,000 and 10,000 undergraduates, 35% between 1,000 and 5,000 undergraduate students, and just 4% of the sample attended institutions with less than 1,000 undergraduates enrolled.

Measures

The NSSE questionnaire focuses on student participation in effective educational practices. For example, students are asked to identify how often they make class presentations, connect ideas from their courses to prior experiences and knowledge, and work with faculty members on activities other than coursework. In addition, students identify the degree to which their courses emphasize different thinking processes (e.g., memorizing, evaluating, synthesizing); how many hours per week they spend studying, working, or participating in co-curricular activities; as well as how they would characterize their relationships with people on campus (NSSE, 2015b).

The outcome measures used in this study were NSSE's ten Engagement Indicators (EIs). Items within these scales were converted to a range of 0 to 60. Afterward, scale scores were computed by taking the mean of the component items as long as the student had answered all of the included items (if a scale had more than five items a student was allowed to skip one and still have a scale score). This study examined the ten EIs in two separate groups; four EIs that address

academic engagement and six EIs that focus on interactions with others on campus (Appendix A):

1. Academic Engagement:
    a. Higher-Order Learning: A four-item measure ($\alpha = 0.84$) of the degree to which students' coursework emphasizes challenging cognitive tasks such as application, analysis, evaluation, and synthesis.
    b. Reflective & Integrative Learning: A seven-item measure ($\alpha = 0.87$) of the degree to which students are motivated to make connections between their learning and the world around them, reexamining their own beliefs and considering issues and ideas from others' perspectives.
    c. Learning Strategies: A three-item measure ($\alpha = 0.76$) of the degree to which students actively engage with and analyze course material rather than approaching learning as absorption.
    d. Quantitative Reasoning: A three-item measure ($\alpha = 0.85$) of the degree to which students are asked to evaluate, support, and critique arguments using numerical and statistical information.
2. Campus Interactions:
    a. Collaborative Learning: A four-item measure ($\alpha = 0.80$) of the degree to which students' coursework encourages them to collaborate with peers in solving problems or mastering difficult material.
    b. Discussions with Diverse Others: A four-item measure ($\alpha = 0.87$) of the degree to which students are afforded opportunities to interact with and learn from others with different backgrounds and life experiences.

c. Student-Faculty Interaction: A four-item measure (α = 0.82) of the degree to which students interact with faculty members inside and outside of instructional settings.
d. Effective Teaching Practices: A five-item measure (α = 0.83) of the degree to which students are exposed to teaching practices that have been found to promote student comprehension and learning.
e. Quality of Interactions: A five-item measure (α = 0.84) of the degree to which students report positive interpersonal relationships with others on campus.
f. Supportive Environment: An eight-item measure (α = 0.88) that summarizes students' perceptions of how much an institution emphasizes services and activities that support their learning and development.

This study controlled for student and institutional characteristics (Appendix B). Student characteristics included sex; racial/ethnic identification; parent/guardian education level; educational aspiration; transfer status; enrollment status; commuter status; whether the student took all of their classes online; major/s; if the student had more than one major; and the number of hours per week the student spent working for pay, providing dependent care, and commuting to campus. Two institutional control variables, undergraduate enrollment and institutional control, were also used.

Analysis

We conducted two analyses in this study. First, we identified what characteristics predict our definition of adult learners. To do so, we ran a regression analysis with adult learner status as the dependent measure (0 = traditional-aged student, 1 = adult learner) and entered the variables identified in Appendix B as the independent variables. In the regression model, all non-

dichotomous variables were standardized prior to entry, therefore the unstandardized coefficient B was an estimate of effect size.

The second analysis examined differences between the adult learners and traditional-aged students on levels and types of student engagement by including adult learner status as an independent measure in a series of regression models. Regression analyses were run first without and then with controls (Appendix B) separately on each EI measure in order to estimate whether the effects of the controls influenced the basic relationships between adult learner status and the dependent measures. Again, as in the previous regression model, all non-dichotomous variables were standardized prior to entry and the unstandardized coefficient B was an estimate of the effect size.

Limitations

This study has some limitations that should be considered before drawing conclusions from the data. First, NSSE is a self-selected and voluntary survey, meaning bachelor's degree-granting institutions locally and individually determine whether they will or will not participate. While Table 2 indicates a diverse group of colleges and universities were included, very few of our study's cases were drawn from entirely online institutions. Based on our review of the literature on adult learners, we would expect to find higher percentages of adult learners at primarily online institutions. It is therefore possible that adult learners who attend online institutions have different experiences and levels of engagement than those students included in our study. Additionally, while many institutions offer response incentives to students for survey completion, survey participation is voluntary. It is possible that there is some bias in which students choose to participate in the NSSE survey, although studies have shown any such bias to be minimal (NSSE, 2015a). Second, adult learner status was based on self-reported age. It is

possible some students incorrectly indicated their age. Students who didn't answer the age item were not included in the study.

Results

The demographic variables that most strongly predicted adult learner status were whether they had taken all of their classes online ($p < .001$, $B = .34$), if they began their education elsewhere ($p < .001$, $B = .23$), if they were a full-time student ($p < .001$, $B = -.27$), and to a lesser extent, if they lived on campus ($p < .001$, $B = -.10$). Of the two institutional characteristics entered into our regression, institutional size was non-significant and institutional control had a small effect size ($B = .02$). Although additional demographic variables were statistically significant, none had notable effect sizes.

Table 1 displays demographic characteristics by adult learner status, and Table 2 presents a similar display for institutional characteristics. In addition to the differences noted above, the adult learners in our study were proportionally more often first-generation students, more racially diverse, and less likely to seek advanced degrees than traditional-aged students. Adult learners were also more likely to be majoring in Business. With regard to institutional characteristics, a greater proportion of adult learners attended for-profit, less-than-competitive, and online institutions than traditional-aged students.

Table 3 contains the results of the mean comparisons for the engagement scales between adult learners and traditional-aged students. Regression coefficients with and without controls and significance levels are also presented. Adult learners reported significantly higher academic engagement with regard to each Engagement Indicator with the exception of Quantitative Reasoning ($p < .001$, $B = -.102$). With respect to interactions with others, adult learners reported

significantly lower levels of Collaborative Learning ($p < .001$, $B = -.222$), Discussions with Diverse Others ($p < .001$, $B = -.076$), Student-Faculty Interaction ($p < .001$, $B = -.156$) and Supportive Environment ($p < .001$, $B = -.135$). The lack of interaction with peers and faculty members does not appear to diminish their perceptions of faculty teaching practices or the quality of interactions with other people on campus, as they reported significantly higher Effective Teaching Practices ($p < .001$, $B = .151$) and Quality of Interactions ($p < .001$, $B = .245$).

Discussion

Several observations that are instructive for researchers and practitioners can be drawn from these results. First, with regard to the characteristics of adult learners:

(1) *Adult learners pursue flexible educational offerings.* Compared to traditional-aged students, adult learners were more likely to take online classes, enroll part-time and have started their education at another institution. Unfortunately, these options also often delay progress to degree in a timely manner.

(2) *Adult learners are diverse.* Adult learners were less likely than traditional-aged students to be white and male and more likely to be first-generation.

(3) *Adult learners are drawn to different types of institutions.* Although this study did not find many notable differences in the types of institutions where adult students are enrolled compared to their traditional-aged peers, they are overrepresented at entirely online institutions.

(4) *Adult learners have specific educational goals in mind.* In this study, one in four adult learners indicated they were seeking a Business degree and were less likely than traditional-aged students to aspire to an advanced degree. This is consistent with

Knowles (1984) definition of this group as task-motivated with focused educational goals.

With regard to adult learners' engagement in effective educational practices:

(1) *Adult learners are more academically engaged.* Compared with traditional-aged students, adult learners experience more Higher-Order Learning, Reflective & Integrative Learning, and Learning Strategies. As such, these students appear to be participating in effective learning practices. The lower Quantitative Reasoning results may be due to adult learners gravitating to degree paths where these activities are not emphasized or may indicate further evidence of these students' anxiety and self-efficacy related to math (Jameson & Fusco, 2014).

(2) Adult learners interact less with others on campus. This finding is not surprising given adult students' pursuit of flexible degree offerings. Adult students are less likely to engage in collaborative learning, have discussions with diverse others, and interact with faculty.

(3) Adult learners have positive perceptions of teaching practices and interactions with others. Despite interacting less with peers and faculty, adult learners have more positive perceptions of Effective Teaching Practices and Quality of Interactions, indicating they are finding ways to connect in constructive ways with others inside and outside of courses.

(4) Adult learners find their campus to be less supportive. Although adult learners appear to engage in effective learning practices and have positive interactions with others on campus, they report their institutions supported their learning and development less than what their traditional-aged peers reported.

The findings of this study echo many of those in previous studies on adult learners. Adult learners face unique barriers, such as work and family responsibilities, which lead them to make different choices for their higher education experience. They likely do not have the time or money to be enrolled full-time and may be more limited by geography than their traditional peers; therefore is logical that these students would be drawn to online or distance education options. Additionally, these career-focused students may likely be continuing their education with very specific vocational goals in mind, leading them to focus on more immediate bachelor's degrees or certifications over graduate degrees.

Because these students are part of a growing population, it is important that we keep their constraints, needs, and goals in mind when examining the quality of their educational experiences. These students, although intrinsically motivated, may need additional support in certain areas such as quantitative reasoning and use of technology. They may also desire a more hands-on and practical educational experience that may be more difficult to achieve online or in distance education settings. Although the adult learners in this study were more actively engaged in their learning and in higher-order thinking processes, they seemed far less connected to their peers and faculty. This could be, again, due to time and locale constraints. Students working full-time, with dependents to care for, may not be able to spend time on campus working with peers and interacting with their faculty which may lead to feeling disconnected from their campus, and thus less supported.

At first glance, these findings may appear to be a severe lack in the educational quality of these students' experiences. Upon closer inspection, however, engagement needs of these students may differ and therefore should be viewed differently in relation to their traditional peers. They may not benefit from the experiences of collaborating with classmates if they have

collaborative experiences in their work environment. Adult learners may not require the mentoring and support from faculty that traditional undergraduates depend on, as they already have clear goals and direction. Adult learners may not feel supported by their institutions, but perhaps the ways in which they define support is different that the ways that many traditional undergraduates do. Much of the literature on student engagement, and consequently the measures on NSSE, is focused upon the experiences of traditional undergraduates. Future research should examine whether or not adult learners benefit from these standard forms of engagement in the same ways. Donaldson and Graham (1999) write that

> Despite a lack of certain types of campus involvement and recent academic experience, adult students apparently learn and grow as much or more as younger students during their undergraduate collegiate experiences. This implies that adults may be using different skills, techniques, settings, or interactions with faculty, fellow students, and others to achieve their desired results (p. 26)

This sentiment echoes the findings of this study—adult learners are academically challenged despite fewer interactions with peers and faculty. Adult learners may be more successful at navigating towards their own paths for academic success than traditional-aged students. Additionally, research should examine what a supportive environment might look like for an adult learner. These students may need and desire different kinds of support than their traditional-aged peers, and the ideal supportive environment should be explored for this growing subpopulation. Their needs and constraints may be completely different from those of traditional-aged students; therefore it is important to consider their experiences to ensure the support of all students' success.

Conclusions

Adult learners are a growing population who have unique desires for and challenges with higher education. Because higher education institutions currently focus on, and cater to, traditional college students and their experiences, it is important to gain a deeper understanding of the experiences and needs of adult learners to support the growing population. The purpose of this study was to document and describe the characteristics of today's adult learners, examine the academic engagement of adult learners, and look at how they connect to peers and faculty on campus. We found that adult learners are more likely to take all of their classes online, begin their education at another institution, and enroll part-time. Compared to their traditional-aged peers, adult learners are more engaged academically, interact less with their peers and faculty, have positive perceptions of teaching practices and interactions with others, and find their campus to be less supportive.

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Table 1. Select Demographic Characteristics by Adult Learner Status

		Traditional	Adult
First-Generation Status (neither parent/guardian holds a bachelor's degree)	No	62%	34%
	Yes	39%	66%
Transfer status	Started here	95%	52%
	Started elsewhere (transfer)	6%	48%
Online courses	No courses taken online	90%	59%
	Some courses taken online	10%	15%
	All courses taken online	1%	27%
Racial/ethnic identification	American Indian or Alaska Native	0%	1%
	Asian	7%	8%
	Black or African American	7%	14%
	Hispanic or Latino	8%	8%
	Native Hawaiian or Other Pacific Islander	0%	1%
	White	65%	55%
	Other	1%	3%
	Multiracial	8%	6%
	I prefer not to respond	3%	5%
Sex	Male	33%	42%
	Female	67%	58%
Enrollment status	Not full-time	1%	29%
	Full-time	99%	71%
Student living on campus	No	25%	89%
	Yes	75%	11%
Major Field	Arts & Humanities	10%	8%
	Biological Sciences, Agriculture, & Natural Resources	12%	5%
	Physical Sciences, Mathematics, & Computer Science	6%	4%
	Social Sciences	11%	11%
	Business	13%	24%
	Communications, Media, & Public Relations	4%	2%
	Education	8%	7%
	Engineering	8%	5%
	Health Professions	15%	14%
	Social Service Professions	4%	8%
	All Other	3%	10%
	Undecided, undeclared	4%	3%
Number of Majors	One major	83%	86%
	More than one major	17%	14%
Educational Aspirations	Some college/university but less than a bachelor’s degree	3%	13%
	Bachelor’s degree (B.A., B.S., etc.)	29%	34%
	Master’s degree (M.A., M.S., etc.)	42%	36%
	Doctoral or professional degree (Ph.D., J.D., M.D., etc.)	26%	18%

Table 2. Select Institution Characteristics by Adult Learner Status

		Traditional	Adult
Undergraduate Enrollment	Very Small (<1000)	3%	6%
	Small (1000-2499)	20%	14%
	Medium (2500 - 4999)	16%	15%
	Large (5000 - 9999)	20%	21%
	Very Large (10K+)	41%	45%
Carnegie Classification	Doctoral Universities	36%	24%
	Master's Colleges and Universities	41%	52%
	Baccalaureate Colleges	20%	16%
	Other	2%	8%
Institutional Control	Private for-profit	1%	18%
	Private not-for-profit	42%	37%
	Public	57%	45%
Selectivity	Not Available/Special	4%	15%
	Noncompetitive	3%	11%
	Less competitive	7%	13%
	Competitive	43%	40%
	Very Competitive	28%	17%
	Highly Competitive	13%	2%
	Most competitive	4%	1%
Calendar System	Four-one-four plan	6%	2%
	Other academic year	0%	6%
	Quarter	6%	13%
	Semester	88%	77%
	Trimester	1%	2%
Online Status	Institution-reported primarily online	100%	92%
	Institution-reported mostly online	1%	8%
Region	Far West	9%	6%
	Great Lakes	18%	16%
	Mid East	17%	14%
	New England	9%	4%
	Plains	10%	12%
	Rocky Mountains	5%	12%
	Southeast	25%	24%
	Southwest	7%	11%

Table 3. Engagement Indicators by Adult Learner Status

	N		Mean		w/o Controls		w/ Controls	
	Trad.	Adult	Trad.	Adult	B	p	B	p
Higher-Order Learning	133736	12336	39.6	40.8	.089	***	.046	***
Reflective & Integrative Learning	133736	12336	36.0	37.6	.124	***	.025	*
Quantitative Reasoning	133736	12336	26.8	26.7	-.006		-.102	***
Learning Strategies	133736	12336	39.5	44.3	.330	***	.194	***
Collaborative Learning	133736	12336	33.5	24.8	-.612	***	-.222	***
Discussions with Diverse Others	133736	12336	41.6	39.1	-.156	***	-.076	***
Student-Faculty Interaction	133736	12336	21.0	17.6	-.218	***	-.156	***
Effective Teaching Practices	133736	12336	40.6	43.2	.199	***	.151	***
Quality of Interactions	133736	12336	41.9	44.3	.201	***	.245	***
Supportive Environment	133736	12336	38.6	34.1	-.319	***	-.135	***

*p<.05, **p<.01, ***p<.001

NOTE – All non-dichotomous variables were standardized so the unstandardized coefficient B is an estimate of effect size.

Appendix A
Engagement Scales and Component Items

Higher-Order Learning (4 items; $\alpha = .84$)

- Applying facts, theories, or methods to practical problems or new situations[a]
- Analyzing an idea, experience, or line of reasoning in depth by examining its parts[a]
- Evaluating a point of view, decision, or information source[a]
- Forming a new idea or understanding from various pieces of information[a]

Reflective & Integrative Learning (7 items; $\alpha = .87$)

- Combined ideas from different courses when completing assignments
- Connected your learning to societal problems or issues
- Included diverse perspectives (political, religious, racial/ethnic, gender, etc.) in course discussions or assignments
- Examined the strengths and weaknesses of your own views on a topic or issue
- Tried to better understand someone else's views by imagining how an issue looks from his or her perspective
- Learned something that changed the way you understand an issue or concept
- Connected ideas from your courses to your prior experiences and knowledge

Learning Strategies (3 items; $\alpha = .76$)

- Identified key information from reading assignments
- Reviewed your notes after class
- Summarized what you learned in class or from course materials

Quantitative Reasoning (3 items; $\alpha = .85$)

- Reached conclusions based on your own analysis of numerical information (numbers, graphs, statistics, etc.)
- Used numerical information to examine a real-world problem or issue (unemployment, climate change, public health, etc.)
- Evaluated what others have concluded from numerical information

Note: Except where noted, variables were measured on a 4-point scale (1=Never, 2=Sometimes, 3=Often, 4=Very Often)
[a] Responses for this item were 1=Very little, 2=Some, 3=Quite a bit, 4=Very much

Appendix A (Continued)
Engagement Scales and Component Items

Collaborative Learning (4 items; $\alpha = .80$)

- Asked another student to help you understand course material
- Explained course material to one or more students
- Prepared for exams by discussing or working through course material with other students
- Worked with other students on course projects or assignments

Discussions with Diverse Others (4 items; $\alpha = .87$)

- People of a race or ethnicity other than your own
- People from an economic background other than your own
- People with religious beliefs other than your own
- People with political views other than your own

Student-Faculty Interaction (4 items; $\alpha = .82$)

- Talked about career plans with a faculty member
- Worked with a faculty member on activities other than coursework (committees, student groups, etc.)
- Discussed course topics, ideas, or concepts with a faculty member outside of class
- Discussed your academic performance with a faculty member

Effective Teaching Practices (5 items; $\alpha = .83$)

- Clearly explained course goals and requirements[a]
- Taught course sessions in an organized way[a]
- Used examples or illustrations to explain difficult points[a]
- Provided feedback on a draft or work in progress[a]
- Provided prompt and detailed feedback on tests or completed assignments[a]

Note: Except where noted, variables were measured on a 4-point scale (1=Never, 2=Sometimes, 3=Often, 4=Very Often)
[a] Responses for this item were 1=Very little, 2=Some, 3=Quite a bit, 4=Very much

Appendix A (Continued)
Engagement Scales and Component Items

Quality of Interactions (5 items; α = .84)
Students[a]
Academic Advisors[a]
Faculty[a]
Student services staff (career services, student activities, housing, etc.)[a]
Other administrative staff and offices (registrar, financial aid, etc.)[a]
Supportive Environment (8 items; α = .88)
Providing support to help students succeed academically
Using learning support services (tutoring services, writing center, etc.)
Encouraging contact among students from different backgrounds (social, racial/ethnic, religious, etc.)
Providing opportunities to be involved socially
Providing support for your overall well-being (recreation, health care, counseling, etc.)
Helping you manage your non-academic responsibilities (work, family, etc.)
Attending campus activities and events (performing arts, athletic events, etc.)
Attending events that address important social, economic, or political issues

Note: Except where noted, variables were measured on a 4-point scale (1=Very little, 2=Some, 3=Quite a bit, 4=Very much)
[a] Responses for this item ranged from 1=Poor to 7=Excellent. Not applicable responses were coded as missing.

Appendix B
Control Variables

Name	Description
Sex	0 = Male; 1 = Female
Racial/Ethnic Identification[a]	American Indian or Alaska Native, Asian, Black or African American, Hispanic or Latino, Native Hawaiian or Other Pacific Islander, White, Other, Multiple Ethnic Identifications, I prefer not to respond
Parent/Guardian Education Level	0 = Either father or mother completed at least a baccalaureate degree, 1 = Neither father nor mother complete a baccalaureate degree or higher
Educational Aspirations[b]	Some college but less than a bachelor's degree, Bachelor's degree (B.A., B.S., etc.), Master's degree (M.A., M.S., etc.), Doctoral or professional degree (Ph.D., J.D., M.D., etc.)
Transfer Status	0 = Did not transfer; 1 = Began college elsewhere
Enrollment Status	0 = Part-time; 1 = Full-time
Commuter Status	0 = Live off campus; 1 = Live on or near campus
Online status	1 = All courses taken online, 0 = Not all courses taken online
Major Field[c]	Arts and Humanities; Biological Sciences, Agriculture, & Natural Resources; Physical Sciences, Mathematics, & Computer Science; Social Sciences; Business; Communications, Media, & Public Relations; Education; Engineering; Health Professions; Social Service Professions; Other; Undecided
More than one major	1 = Student reports more than one major, 0 = Student reported only one major
Number of hours a week:	Working for pay on and off campus
Number of hours a week:	Providing care for dependents (children, parents, etc.)
Number of hours a week:	Commuting to campus (driving, walking, etc.)
Institutional control	0 =Public; 1 = Private
Undergraduate enrollment	IPEDS Fall 2012 undergraduate degree-seeking enrollment

[a] Coded dichotomously (0 = not in group, 1 = in group), White was the reference group.

[b] Coded dichotomously (0 = not in group, 1 = in group), Doctoral or professional was the reference group.

[c] Coded dichotomously (0 = not in group, 1 = in group), Arts and Humanities was the reference group.