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Examining the Relationship Between Student Age and Modality Choice in a Community College's New Student Orientation Program: A Preregistered Study to Examine the Assumption of Self-Directed Learning

Amy L. Foree
University of Arkansas-Fayetteville

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Examining the Relationship Between Student Age and Modality Choice in a Community College's New Student Orientation Program: A Preregistered Study to Examine the Assumption of Self-Directed Learning

A dissertation submitted in partial fulfillment
of the requirements for the degree of
Doctor of Education in Adult and Lifelong Learning

by

Amy L. Foree
Arkansas State University
Bachelor of Science in Marketing Management, 2006
Arkansas Tech University
Master of Science in College Student Personnel, 2014

December 2023
University of Arkansas

This dissertation is approved for recommendation to the Graduate Council.

Kevin M. Roessger, Ph.D.
Dissertation Chair

Kit Kacirek, Ed.D.
Committee Member

Michael Hevel, Ph.D.
Committee Member

Abstract

Understanding and navigating college rules, resources, and expectations is a considerable barrier for students accessing and transitioning to college (Conley, 2007; Williams, 1996; Hooker & Brand, 2010; Ardoin, 2013; Sheppard, 2012). To improve students' acquisition of pertinent, time-sensitive information, many institutions have implemented mandatory new student orientations (NSO). Orientations provide information such as academic policies and procedures, institutional expectations, campus resources, and financial aid assistance. They also allow students to meet faculty, staff, and other new students. By providing these resources, institutions acclimate students to their new environment.

Although colleges realize that new student orientations support students' success, they also acknowledge many students face barriers that prevent them from attending (Barker, 2015). These students are often older, nontraditional students who balance multiple responsibilities (Choy, 2002; Ross-Gordon, 2011). To accommodate these students, some colleges are implementing new methods and programs with flexible modalities (e.g., online or hybrid). Still, some institutions hesitate, citing concerns related to accessibility and students' lack of attention, participation, and sense of community (Bergdahl, 2022; Morris & Ogan, 1996).

Researchers, however, have argued that such concerns overlook the self-directedness and independence of the learner: "independent learners are capable of acquiring knowledge anytime, in any place, through any means" (Levy, 2017, p. 258). Independent learners, they argue, have a storied place in the history of adult learning, dating back to early Greek philosophers, like Socrates, and early inventors, like Thomas Jefferson. Independent learners are usually self-taught and tend to be self-directed (Candy, 2009; Knowles, 1975). According to Knowles' Self-Directed Learning Theory (SDL), students who are self-directed prefer to manage their own learning, with

or without the help of others. A principal assumption is that as adults mature (i.e., age), they develop a more self-directed learning identity. To cater to self-directed students and accommodate those unable to attend on campus, online new student orientations are becoming increasingly popular, especially at community colleges (Jaggars et al., 2013; Deschacht & Goeman, 2015; Kilburn, 2016). Chan (2017) found that 20 percent of community colleges now opening “recognize the necessity and urgency of utilizing technologies to positively impact core service operations, including new student orientation sessions” (p. 24).

This study will investigate if theoretical claims explaining adults’ self-direction manifest in their choices to attend new student orientations. Specifically, it will determine if students’ ages can predict their choice to complete online new student orientations rather than in-person orientations, after controlling for work, family, and distance from campus, as well as self-directed readiness.

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Chapter 1: Introduction to the Study

Introduction

According to American Council on Education (2019), today's colleges and universities across the United States reflect an older, more diverse student body than ever before. Community Colleges, which often serve as a gateway to higher education for nontraditional and underrepresented student groups, are grappling with finding ways to adapt to meet the needs of this increasingly diverse student population (Philibert, 2005). National Center for Education Statistics (NCES) (2022) reports that adult learners make up almost 75% of the nearly 20 million students enrolled in college. "The pipeline of traditional 18-24 year-old students has become flat or decreased. And with this, student preferences and behaviors have also changed" (National Center for Education Statistics, 2020, para. 3). Among the challenges confronting educators and college administrators in accommodating a diverse population of students are alarmingly high attrition rates. Graduation rates, particularly at 2-year institutions nationwide, are discouraging. Research estimates that less than 40% of community college students earn a degree or certificate within 6 years of enrollment (Bailey et al. 2015).

These challenges will require community college educators, administrators, and policymakers to take a more urgent and strategic approach to addressing the crisis of student retention in U.S. higher education. To do so, colleges and universities must "continue to rethink what is the best methodology for teaching" (Verde & Valero, 2021, p. 1). This includes considering how to reconstruct student programs and services to be more responsive to adult learning needs.

Student retention is crucial for colleges and universities. Particularly for community colleges, student retention rate is not only a critical measure of success, but a key driver of economic prosperity. Several states have recently adopted it as a performance-based metric

directly tied to community college funding. Policymakers, recognizing that community college outcomes have a significant impact on strengthening the nation's economy, have adopted student retention rates as a key factor in performance-based funding structures (Altstadt et al, 2009). States across the country have begun implementing these performance-based funding structures hoping to improve dismal nationwide graduation rates. Arkansas is one such example. In 2017, the Arkansas Department of Higher Education (ADHE) restructured the funding formula for Arkansas community colleges. Instead of allocating funds based on new student enrollment numbers, money is allocated based on the retention and graduation of students. As student retention metrics increase, so too does state support. This new model of funding, referred to by Arkansas State as Productivity Funding, has shifted colleges' priorities away from merely attracting and enrolling new students, to focusing on supporting returning students with the aim of improving overall student and institutional.

Although these new performance-based funding formulas provide increased accountability over public 2- and 4-year colleges and universities, they do not provide colleges with instructions for how to improve their student retention rates. Colleges and universities are charged with developing and implementing the programs and services necessary to best support their individual student populations and increase student retention rates. One such program that has been widely adopted by higher education institutions in the United States is New Student Orientation (Kronovet 1969). New Student Orientation (NSO) is an important, evidence-based intervention that can help new students acclimate to a new campus environment and make a more successful transition to college. New Student Orientation is a program, led by student affairs professionals, to introduce students to campus resources, opportunities, and student life. Though these programs vary in modality and length, the goal is to provide students with helpful

information, support services, and avenues for communication to create a successful transition to college, and ultimately, graduation. Research has shown that this transition period is vital, so much so that it can set the tone for overall academic success or failure for new students (National On-Campus Report, 2005). Marina & McGuire (2008) have demonstrated that the relationship a person first forms with a college can predict their academic success and persistence throughout their first year.

While colleges have clear goals to increase student enrollment and retention, they often struggle to address the needs of adult learners (Philibert, 2005). Access to postsecondary educational opportunities is a 21st century imperative. As has been the case for the past several decades, today's global workforce increasingly depends on jobs that require postsecondary credentials and degrees (Mullin 2013). In a 2013 policy brief by the American Association of Community Colleges, 2-year public institutions are described as operating as “‘engines of economic development’ serving as an intricate institution offering pathways to credentials, degrees, and retraining opportunities for those with and without college credentials” (Mullin, 2013, p. 7). As more occupations require postsecondary training and retraining, more adult learners are returning to institutions of higher education to earn the necessary credentials to compete in today's college-educated labor market. These adult learners overwhelmingly choose community colleges to work towards postsecondary credentials, and they arrive with distinct needs and goals for transitioning to college. These students are also likely to have unique needs and concerns that undoubtedly impact their academic performance and success. It is essential that colleges create and implement student orientation programs to address and help alleviate the barriers these students face and lower high attrition rates.

With the majority of today's undergraduate students tending to be older than the 18-24-year-old traditional student (NCES, 2020), more students are juggling multiple roles like work, parenting, caretaking, relationships, marriages, and community commitments (Ross-Gordon, 2011). In addition, these students have different learning needs than traditional college students. Research shows that adult learners need flexible class times and locations (Markle, 2015), inclusive pedagogical environments (Exposito & Bernheimer, 2012), sensitive faculty and administration who show understanding when the student's work and family responsibilities interfere with school obligations (Hittepole, 2023), and learner-centered environments that allows students to connect the course material to their lives (MacDonald, 2013). If colleges and universities are to address high attrition rates, critical institutional programming—such as New Student Orientation—must be adapted to meet the needs of adult learners. The problem is that many institutions only offer this mandatory orientation as an on-campus program, requiring students to be on campus for most of the day. Some institutions offer an online option but then demand students pay for the credit hours and fees, as if it is an additional class for the semester. This method not only fails to accommodate adult learners' needs and wants, but forces students to choose between their already crowded plate of responsibilities. Keith (2007) argues that institutional barriers such as this can cause students stress that results in the student withdrawing.

Within the vast literature on adult learning, one of the most prominent theoretical lenses is Self-Directed Learning Theory. Self-Directed Learning (SDL) Theory assumes that adult learners are highly motivated, ready to learn, and self-directed (Knowles, 1975). Self-directed learning theory suggests that students with higher levels of self-directed readiness may more strongly prefer to attain and seek information on their own as opposed to physically attending a

traditional, on-campus NSO where the same information is given in a lecture-style format (Knowles, 1975; Brockett & Hiemtra, 1991). When this theory is applied to community colleges, it suggests that adult learners may require adapted programs and services that allow them to learn and access resources independently through self-guided inquiry. Recently, Roessger, et al. (2019) used Self-Directed Learning Theory as a framework to examine how adult learners participate in academic advising within community colleges. The authors explored the question of whether older adult learners used first-year in-person academic advising differently than traditional students. After controlling for increased time commitments with work and family, the authors found that adult learners are not as likely as their younger peers to participate in formal in-person academic advising. I would like to determine if a similar preference occurs with in-person NSOs.

My study seeks to expand upon the research of Roessger et al (2019) to determine if age is a similarly useful predictor of student participation in other essential student programs and services, specifically new student orientation. A significant body of research has shown that new student orientation impacts student success and institutional outcomes, including retention and graduation rates (Tinto, 1993; Anderson, 1999; Hodum, 2007; Chen, 2012; Chan, 2019). This research seeks to reexamine the assumption of self-directed learning among adult learners by utilizing SDL as a theoretical framework to determine if age is a factor in how community college students choose to engage with traditional models of new student orientation. When adult community college students are presented with a choice in the modality of new student orientation, do they, as SDL theory would suggest, tend to exhibit a propensity to select modalities that are more closely aligned with self-directed learning practices? With this research, I seek to determine if age is a useful predictor of a community college student's likelihood to opt for an online, or virtual, new student orientation that is more aligned with SDL theory of adult

learning, while controlling for outside commitments such as work, family, and distance from campus.

Overview of Chapter

In this chapter, I outline how New Student Orientation (NSO) programs are essential for new students in providing campus awareness and the critical resources necessary to support a successful transition to college. Research has shown that as students begin their journey into higher education, NSO programs not only help students successfully transition to a new campus, they also promote retention and long-term student success (Brawer, 1996; Davis, 2013).

Unlike traditional college students, adult learners face daunting challenges that impede long-term academic persistence. These challenges create practical barriers that often make it difficult for students to attend the mandatory on-campus NSO programs that are so critical to their academic success. The challenges they face are significant, although research shows adult learners also possess such resilient traits as being achievement oriented, highly motivated, and relatively independent (Cross, 1980). As Roessger et al. (2019) noted, research suggests older students have distinct motivations for learning and a general wish to plan and control their learning. This population of students has unique needs and requires special accommodations for flexible schedules and classroom instruction that is aligned with adult-learning practices (Cross, 1980; Ross-Gordon, 2011).

Despite mandatory new student orientation programs and other student services, high attrition rates suggest that community colleges are not adequately supporting adult learners in their transition to college. Research shows that nearly half drop out of college (Bers & Schuetz, 2014). This raises significant questions about community colleges meeting the needs of adult learners. Are colleges perpetuating low retention rates among adult learners as a result of

antiquated models of programs and services designed with the traditional college student in mind?

This study highlights the needs of adult learners and how they decide to engage with key student services and programs, specifically NSO programs. While many colleges only offer orientations on campus, online NSO programs have been used in a select few colleges to increase campus awareness and offer adult learners greater flexibility and independence. Edwards (2015) stated self-directed learning is becoming increasingly important in the global economy and international society and is associated with adult learners that exhibit common characteristics. Consistent with SDL theory, as students age, they naturally become more self-directed. Therefore, students' ages and level of self-directedness is examined in this study. Concepts are theoretically defined, as they relate to self-directed learning, age, and being in control of one's learning. This chapter concludes with a discussion of the proposed study's scope and limitations.

Background of Study

Community colleges are desperate to pull back the reins on student attrition. Every student who drops out each year results in a decrease in overall funding for the institution. While efforts to combat high attrition rates have often focused on increasing enrollment, studies show that it takes 3-5 times as much money to recruit a new student than it does to retain an already enrolled student (Ruffalo Noel Levitz, 2022; Rosenberg & Czepiel, 1984; Tinto, 1975). Hossler and Bean (1990) report that a student who is retained at an institution for four years will generate the same income as four new students who leave after one year, yet the cost of enrolling and supporting new students is significantly higher.

To combat some of the logistical and practical barriers adult learners face, a few innovative colleges have begun to offer online new student orientations that provide more

flexibility for students juggling multiple roles. Adult learners are often those who have historically been denied access to higher education due to discriminatory policies, lack of financial aid opportunities, and additional challenges related to navigating college admissions processes as first-generation students (Seftor et al, 2002). Online NSOs are a way that colleges can greatly reduce practical barriers and increase access and equity to all students seeking education.

These online orientations, when designed to align with best-practices of adult learning, not only offer flexibility, but also allow for independent inquiry opportunities for students to garner invaluable institutional information through videos, literature, and assessments to check for understanding. Online NSOs reduce barriers for students facing transportation and travel issues, and reduce time constraints for students juggling work and childcare. Asynchronous, independent learning opportunities allow students to participate in orientation at any time, and students can review materials as many times as needed to become familiar with resources the college has to offer. This also is a great advantage for students with disabilities who benefit from opportunities for repeated instruction.

Aside from convenience, adult learners overwhelmingly choose online learning. This is likely, in part, because adult learners are more self-directed (Brockett & Hiemstra, 1991) and prefer to work at their own pace. Knowles (1975) states that adult learners tend to be more proactive learners. Knowles goes on to contend that “there is convincing evidence that [students] who take the initiative in learning (proactive learners) learn more things, and learn better” than do younger, more traditional students who may tend to be more reactive learners that passively “sit at the feet of teachers” (1975, p 14). Adult learners tend to prefer modalities of learning that allow them to be the decision maker in all aspects of their learning process. Rogers (2004)

contends that self-directed learners initiate their own learning by finding out what they need to learn and how, and by planning and monitoring their learning using various resources.

Self-directed students exhibit intrinsic motivation, self-discipline, possess high levels of determination, perseverance, and self-motivation (King, 2011; Cross, 1980). Online student orientation is one way to support the unique learning needs of self-directed students because it allows students to work independently and be in control of what they are learning, a critical component of adult information processing.

In its broadest meaning, self-directed learning describes “a process in which individuals take the initiative, with or without the help of others, in diagnosing their learning needs, formulating learning goals, identifying human and material resources for learning, choosing and implementing appropriate learning strategies, and evaluating learning outcomes” (Knowles, 1975, p. 18). Other researchers suggest that self-directed students prefer to be in control of their learning, assume primary responsibility of their learning experience, and tend to become more self-directed as they get older (Knowles, 1975; Guglielmino, 1977; Brockett & Hiemstra, 1991; Oswalt, 2003; Boyer, et al, 2014; Bosch, 2017). These findings raise significant questions for educators and college administrators concerned with supporting today’s diverse undergraduate student population. If student demographics have shifted so dramatically in recent decades to reflect an overwhelmingly older, nontraditional student population of undergraduates, should we not then see those changes also reflected in institutional programming that is so critical to student success?

Self-directed students not only have the capability to independently learn to traverse a college’s website, college portals, and college learning management system through an online orientation, but they require independent inquiry. Research indicates that successful transition to

college depends on students fully understanding an institution's programs of study, policies, support services, campus life, social clubs and organizations, financial aid and essential logical information such as dates and deadlines (Mullin, 2012). This information can often be cumbersome and overwhelming to students just transitioning to college, particularly for first-generation students, those from low-income backgrounds, and those from underrepresented groups.

Student affairs professionals and administrators, when considering redesigning online orientations to better meet the needs of adult learners, should not view orientations merely as an online version of traditional lecture-style information sessions that are made available to students as a flexible option. Instead, best practices for building online orientations are built using a framework of SDL. Theories of SDL suggest that information sessions should be largely self-guided with more opportunities for independent inquiry rather than primarily instructor-led. Slide decks, web links, and tutorials are made available electronically, and assessments are utilized to ensure students have perused the materials. If the assumption holds that adult learners do have a propensity for self-directed learning, these students will likely opt to take advantage of these independent learning opportunities. The problem is that institutions implement orientations that are not conducive to the lifestyle and learning needs of adult learners. Instead, student affairs professionals cater to traditional students' schedules, emphasizing orientations are an opportunity to provide success to all their students. However, these mandatory, on-campus orientations turn into challenging obstacles for adult learners.

Bergman et al. (2014) caution that students who feel conflict between work and college face a 78% higher risk of dropping out. Minimizing conflict between work and classes, whether real or perceived, may be one of the most impactful ways to address the effects of external

environmental variables. Ultimately, finding ways to support this growing student body with varying and complex needs is challenging, but enhancing student persistence starts with meeting the adult learners' needs.

Need and Purpose of the Study

The purpose of this study is to further examine the assumption of self-direction among adult learners on community college campuses by exploring the relationship between the ages of students who are required to complete NSO and their decisions to complete it online or on campus. I will examine whether students' ages are related to their likelihood of choosing an online orientation. To address assumptions and realities that come with adult learners, such as family and work responsibilities, I will control for them, as well as the distance a student lives from campus.

As Roessger et al. (2019) noted, students who are self-directed require more independence in their educational decisions and, in turn, respond well to learning modalities that substantiate adult learning practices. The dependent variable, modality of new student orientation, will be measured as whether a student participates in an online or on campus modality. Both modalities can be described as mandatory programs which provide new students with information about services and support, campus navigation, student portal review, and an opportunity to meet other students. Online programs offer a repository of information that students can explore themselves, whereas on-campus programs are designed to relay information to students via traditional lecture-style delivery. The independent variable, age, is a continuous variable defined by the student's age in years from 0-100. To minimize the effects of potential confounding variables that may also affect a student's choice of modality, I will control for family status, employment status, distance from campus, as well as fear of COVID-19.

Additionally, self-directed readiness will also be controlled. By controlling for self-directed readiness, I can determine if it accounts for additional variation in modality choice beyond age. This will illustrate whether age is, in fact, a useful proxy for self-direction or whether measures of self-direction would be more useful in future research. Given the availability of age measures in community colleges—relative to SDL measures—establishing age as a useful proxy for SDL would immediately inform data-based decision making for self-directed learners.

By adapting current NSO programming to meet the needs of today's increasingly diverse student population of adult learners, students and institutions alike will significantly benefit. Given the research illustrating that NSOs improve retention, institutions of higher learning will not only benefit by seeing an increase in overall student retention, but in states like Arkansas with performance-based funding structures, implementing these programmatic changes will also result in increased state funding.

This study also fulfills a growing need repeatedly cited within the literature for greater empirical support for mandatory new student orientation programs and institutional best-practices for adult learners (Lanford, 2019; Yoon, 2019). The information gathered in this study will be particularly useful to all stakeholders in higher education, from the students themselves to college administrators who design new student orientation programs. The results of this study will help determine if online orientations are crucial to meeting the needs and preferences of adult learners. With research-based support services in place, community colleges can better recruit and retain adult learners. In order for all students to be successful regardless of age and background, research has shown that all students must have a successful transition into college. Results of this study will help student affairs professionals design and implement models of orientation programming for their institution that incorporates theory and research to best

support this historically unique student population. Deggs (2018) states previous efforts to modify traditional operational paradigms have often been through trial and error and arguably with limited insight into the true needs of the adult learner in higher education. This approach has resulted in two ideologies of academic and student services—one for traditional students and a separate one for adult learners. The hope for this study is that it will provide research-driven recommendations to create an orientation that can effectively meet all students' needs.

Furthermore, the findings of this research will help determine what student characteristics are most essential to consider when designing new student orientation programs that best support student learning needs. With more comprehensive research, institutions can create more effective orientations, which ultimately result in higher student retention and increased graduation rates. Based on the results of this study, institutions will be more informed on how to design and implement orientation programs better suited to meet adult learning needs. These findings will also allow institutions to simultaneously create more accessible and equitable institutional programs to more adequately and effectively support diverse populations of students. Additionally, colleges and universities that are able to increase student retention rates in states with performance-based funding structures will have the added benefit of increased state funding.

This study will also make a significant contribution to the literature by generating empirical evidence that addresses how students' age and learning characteristics impact their decision making, specifically in their choice of new student orientation programs. This study is critical to long-term student achievement, and thus student persistence and retention. Information in this study can reveal the modality that is most conducive to how adult students learn.

Statement of the Research Problem

According to SDL theory, there are positive relationships between the age of students, their levels of motivation, and increased preferences toward methods of learning that increase self-direction and learner control (Knowles, 1975; Ross-Gordon, 2011). This study seeks to interrogate the assumption of self-directed learning by investigating if older adult learners tend to choose an online new student orientation more aligned to self-directed learning rather than an in-person one. Two formal research questions guide this study:

1. Is there a relationship between a student's age and choice to complete NSO online?
2. Does this relationship remain after controlling for a student's work status, family status, distance from campus, and self-directed readiness?

This study seeks to determine if adult learners in community colleges, when presented with multiple modalities of new student orientation, tend to exhibit a propensity to select modalities that are more closely aligned to self-directed learning preferences. If age is a useful predictor of learning modalities, the question that follows is whether conventional models of new student orientation programming are most conducive to how adult students learn. If not, this study's findings could shed light on whether colleges could benefit from adapting institutional programming to better meet the needs of adult learners who now comprise the majority of undergraduate students in U.S. higher education.

Definitions

Adult Learner: College students who are 25 years of age or older, or students aged 18-24 who maintain adult responsibilities such as employment, family, and other responsibilities of adult life

COVID-19: A respiratory disease caused by SARS-CoV-2, a new coronavirus discovered in 2019 that spreads mainly through person-to-person contact (Centers for Disease Control and Prevention, 2020).

Face-to-Face: Format where students participate in orientation on campus. Students sit-in on live presentations, technology workshops, and mingle with other new students during an on-campus event.

New Student Orientation Program: a mandatory program which provides new students with information about services and support, campus navigation and student portal review and an opportunity to meet other new students (Atkinson, 2015). For the purpose of this study, New Student Orientation Program is defined as a 1 day, 4-hour event held on campus where presenters instruct students in a traditional, lecture-style format. Students attend 4 sessions, titled Safety and Security, Blackboard, Technology, and Campus Resources & Expectations. The Safety and Security sessions covers topics of FERPA, Title IX, sexual harassment, active shooter, parking, and security officers. Expectations sessions cover behavioral and academic expectations. Technology sessions allow students to log into their college portals and navigate online tools, such as Blackboard. Campus Resources cover all the support services and programs available to students. Another format of new student orientation programs is an online presentation covering the same sessions addressed at the on-campus orientation. Students watch videos, PowerPoints, and review text via Blackboard. Students must complete quizzes over each section to complete the online new student orientation.

Nontraditional College Student: College student aged 23+

Online New Student Orientation Program: Format of new student orientation program offered via online platforms and utilizes learning modalities with opportunities for self-direction

including video, slide desks, text and links. For the purpose of this study, an online NSO is an NSO program offered via Blackboard with videos, PowerPoint presentations, and assignments. Mandatory assignments must be completed to pass the class and register for subsequent semesters.

Orientation Session: Sections of NSO covering specific topics

Self-Directed Learning: a process in which individuals take the initiative, with or without the help of others, in diagnosing their learning needs, formulating learning goals, identifying human and material resources for learning, choosing and implementing appropriate learning strategies, and evaluating learning outcomes (Knowles, 1975, p. 18).

Self-Directed Learning Readiness: the degree the individual possesses attitudes, abilities, and personality characteristics necessary for SDL (Wiley, 1983).

Self-Directed Learning Readiness Scale: The *SDLRS* is a self-report questionnaire with Likert-type items developed by Dr. Lucy M. Guglielmino in 1977. It is designed to measure the complex of attitudes, skills, and characteristics that comprise an individual's current level of readiness to manage his or her own learning (Guglielmino, 1978).

Traditional College Student: College student aged 18-22

Scope and Limitations

This research focuses on the age of students and how their age affects their choice in modality of orientation. Prior research was taken into consideration and certain external factors, such as work and family obligations, were held constant as to rule them out as possible alternative explanations for an effect. Still, there may be possible confounding variables that I have not included in this study.

This study has a few additional limitations that should be considered before its undertaking. This study takes place at a rural community college in Arkansas where diversity is limited, thus potentially limiting generalizability. Respondents include any and all students who are mandated to complete new student orientation at the community college. Students will be given the option to participate in the study when they register for an orientation day.

Additionally, much like Roessger et al. (2019), this study focuses on students' choice of modality for new student orientation, not the influence of NSO on students' success in the classroom or meeting their educational objectives.

Summary

Adult learners are often those who historically have not had the privilege of equal access to higher education due to discriminatory institutional policies, lack of financial support to afford postsecondary education, or a general lack of generational knowledge of how to navigate the world of higher education. In recent decades, colleges and universities have experienced an influx of adult learners due to a multitude of social, economic, and political changes impacting higher education. As such, community colleges in particular are now tasked with adapting course instruction and institutional programming to support the unique needs of an older, more diverse population of undergraduate students than ever before. Access to higher education today is now an economic necessity given the number of jobs that now require postsecondary training, and this fact has greatly elevated the importance and value of community colleges in the United States.

Comprehensive research has shown that new student orientations are an effective means to prepare and inform students of information essential to long-term academic success for students as they transition into college. NSO programs are also shown to have a direct impact on

increasing student persistence and retention rates. For nontraditional students, adult learners, and students from historically underrepresented groups navigating higher education for the first time, effective new student orientation programming is an imperative. NSOs have proven vital to the success of new students and positively influences their overall academic performance and persistence towards graduation. To combat high attrition rates, colleges and universities must find ways to accommodate the wide-ranging needs of older, nontraditional student populations.

Many 2-year and 4-year institutions offer new student orientation programs for their students, but the ways in which they are offered vastly differ. Some colleges have begun to implement innovative methodologies that take into account the preferences of adult learners, but for the most part, most colleges provide students with only one NSO option based on outdated, conventional models. Generally, this is an on-campus orientation, requiring students to spend hours, and sometimes days, on campus listening to staff and administrators present in a lecture-style format. However, according to self-directed learning theory, older students learn best when provided learning opportunities that allow for independent inquiry and exploration. Studies show self-directed learning readiness increases with age. Therefore, this study will attempt to look at the age of students to determine if it is a likely predictor for the modality of NSO students choose. This study seeks to fill an important gap in the literature to determine whether self-directed readiness influences student decision making, specifically around a student's choice to complete an online NSO versus a more traditional on-campus NSO option.

If the assumption is true that age is, in fact, a predictor of self-directed learning options, then this may be further indication that colleges should strongly consider the ages and learning characteristics of new students when designing essential student programs and services. It is imperative that college administrators provide an effective orientation that helps the institution

retain students and encourages student persistence and academic success. For an orientation to be effective, college administrators must consider the demographics of their students and design an orientation model that is grounded in research and theory, rather than conventional pedagogical practices. By implementing a research-based orientation model, public institutions of higher education can be more responsive to student learning needs in order to both reduce barriers to educational attainment and provide the best learning practices for all students. Flexible NSOs will allow adult learners the ability to complete NSO requirements and acquire crucial institutional information, while accessing it in a format that is based in a theoretical framework of adult learning that best meets student needs. Furthermore, flexible new student orientation programs provide greater access and equity for students of all ages and backgrounds.

While this study is limited to one college, the data accurately captures the diverse demographics of students at community colleges across Arkansas. To better understand the unique learning needs of adult learners will be a great benefit to all stakeholders in higher education. Results of this study will be shared with community colleges across the state of Arkansas. This study will allow university administrators and policymakers to make informed decisions with regards to designing more accessible and equitable student programming, such as new student orientation, to better fit the needs of adult learners and thereby increase student retention rates on college campuses in Arkansas and across our nation.

Chapter 2: Literature Review

Introduction

In this chapter, I discuss if today's institutions of higher learning take into consideration the demographics and learning needs of their students when planning events, such as new student orientation (NSO). Research shows, the more an institution knows about its students and understands how its students learn, the greater are its chances of success with students (Davis, 2018). Understanding this dynamic, researchers continue to study how student success is influenced by adult learning theory and instructional design practices (Chen, 2017). The research proposed here aims to follow this tradition by helping institutions adjust their practices to align with theory and existing research. To do this, this literature review discusses historical foundations of NSOs, shifting demographic trends in higher education, and self-directed learning theory as a way of understanding adult participation in higher learning. Literature on supporting the needs of diverse student populations is also examined.

Utilizing University of Arkansas's libraries, I accessed EBSCOhost, ERIC, and ProQuest databases to search for relevant articles, theses, and dissertations. Key words used were *adult learners, non-traditional students, new student orientation, self-directed learning, and online orientation*. The results from this search focused largely on academic programs for adult learners and specific strategies that cater best to adult learners' needs. While I did find an abundance of information on how adults learn best and how instructors can accommodate them in the classroom, I found very little on how orientation programs can best be designed and implemented for adult learners. Results pertaining to new student orientation programs generally discussed them in general terms for all learners.

Historical Overview and Institutional Value of New Student Orientation

New student orientation (NSO) programs have a rich historical background and are highly valued in higher education as a means to enhance student engagement and retention (Strumpf et al., 2003; Drake, 1966). Originally developed as informal activities to welcome new students to campus life, NSOs have evolved into more formal events mandated by many institutions, providing crucial information about the college experience (Mack, 2010). These programs cover a range of topics, including services and support, campus navigation, student portal review, and addressing important issues like sexual harassment and Title IV rights as required by federal regulations (Atkinson, 2015).

Research on NSO programming consistently demonstrates its positive impact on student outcomes, including increased persistence, higher graduation rates, and greater satisfaction in academic preparation (Pascarella et al., 1978; O'Banion, 2013a; Davis, 2018). Specifically, NSOs have been linked to improved academic preparedness, information literacy, campus navigation and resource utilization, social integration, goal setting and decision making, and successful college transition and adjustment.

Pascarella et al. (1978) found that NSOs directly influenced student persistence and commitment to the institution. Glass and Garrett (1995) observed that participation in NSOs led to higher retention rates and better academic performance, as indicated by grade point averages. Hollins (2009) investigated the impact of NSOs on student retention and found a positive relationship, while Davis (2018) emphasized the need to align NSO program design with the diverse needs of students and recognized the effectiveness of both face-to-face and online orientation options.

Overall, the research underscores the importance of NSOs in promoting positive student outcomes and highlights the need for institutions to tailor their orientation programs to effectively address the needs of their diverse student populations (Davis, 2018). By continuously improving NSO program design and implementation, colleges and universities can better support student success and enhance the overall college experience.

New Student Orientation and the Changing Face of U.S. Higher Education

With the growth of community colleges and federal financial aid policies, underrepresented groups have increasingly gained access to higher education (Seftor & Turner, 2002; Thelin, 2011). Over time, financial aid policies have undergone changes to specifically address the needs of underrepresented groups and promote greater access to higher education. Pell Grants have been expanded to provide more financial assistance to low-income students, including underrepresented groups. The maximum award amount has been increased, and eligibility criteria have been adjusted to accommodate more students from disadvantaged backgrounds. Many financial aid programs, both at the federal and state levels, have been created or modified to specifically target underrepresented groups. These programs aim to increase access and participation for students from historically marginalized communities, such as ethnic minority groups, first-generation college students, and individuals from low-income households. And finally, financial aid policies have shifted towards a greater emphasis on need-based aid rather than solely merit-based scholarships.

These changes in financial aid policies have aimed to address the unique challenges faced by underrepresented groups in accessing higher education. By providing targeted support, expanding eligibility, and promoting equity in the distribution of financial resources, these

policies have helped to reduce financial barriers and increase opportunities for underrepresented students to pursue and complete their education.

Simultaneously, community colleges have seen a large increase in adult learners (Seftor & Turner, 2002). Seftor and Turner (2002) noted that of the many factors shaping the landscape of higher education between the 1970s-2000s, the dramatic increase in adult learners was “the most striking” (p.337). Unfortunately, high attrition rates for adult learners have followed (ACT, 2009), and college and university administrators are now asked to do more to meet the needs of this ever changing, increasingly diverse population of students. According to the National Student Clearinghouse, (June, 2022) the current retention rate for students aged 24 or older is 42% compared to 70% for students aged 18-20.

Today U.S. colleges and universities are more diverse than ever before (Kena et al. 2015; Planty et al., 2009). Higher education now serves more women, students of color, first-generation students, low-income students, and full-time working students. Consequently, many students must juggle their studies with work and parenting (Wilson, 2004). Although student demographics among two-year colleges and four-year universities alike reflect increased diversity overall in their student populations, community colleges, known as a gateway for underserved populations, are uniquely tasked with serving far more students considered nontraditional, at-risk, and low income (Wilson, 2004).

Additionally, students attending 2-year community college students are older. According to NCES data (2015), over 40% percent of all undergraduate students nationwide were considered “of nontraditional college age,” which is defined as 25 years of age or older (CLASP, 2015). Adult learners account for more than 71% of students enrolled in higher education. In 2013, 12 million adult learners were enrolled in higher education, and this is projected to rise to

14 million students by 2024 (Kena et al. 2015). With these changing demographics, colleges and universities have struggled to adapt their policies and practices to adequately support adult learners. For community colleges, this is particularly concerning, given they are generally the institution of choice for adult learners (Hamm, 2004).

Meeting the Needs of Diverse Undergraduate Student Populations

The traditional college student is defined as a student who enters college immediately after graduating from high school, and either does not work or only works part-time while attending college (Choy, 2002). What defines a nontraditional student, however, varies widely and has been the topic of discussion in the research for decades. While age has long been the determining factor to define a student as traditional or nontraditional, more emphasis is being placed on roles and responsibilities of the student. Generally, adult learners are defined as adults 25 years of age or older, or more importantly, those who maintain adult responsibilities such as employment, family, and other responsibilities of adult life (Cross, 1980; Horn, 1996). Currently, only 38 percent of college enrollments consist of 18-24 year olds (NCES, 2023). While some consider this group traditional, this measurement does not account for those students who carry the same responsibilities and needs as adult students, such as working full-time and caring for dependents. Otherwise, the overall percentage of “traditional students” would be much lower.

Research shows low income, place-bound students with family and work obligations are more likely to enroll in community colleges for academic and vocational development (Hale & Buzas, 2012; Hudesman et al. 2013; NODA, 2014; Stebleton & Schmidt, 2010). According to American Association of Community Colleges (2023), the average age of a community college student is 27 years old. The practical barriers alone of scheduling, childcare, and transportation impact a student’s ability to access and navigate traditional college programs. Additionally,

without income to cover basic living expenses and college costs, most students likely have to work to cover direct and indirect college expenses. Huelsman (2018) reported that working while in school to finance one's education is necessary for most undergraduate college students. For community college students, 63 percent would be unable to attend college if they did not work at least part-time, and almost one-third of undergraduate students work full time while working toward college degrees (CLASP, 2015). According to NCES (2022), 40% of full-time students and 74% of part-time students work while enrolled. In addition, on average, 10% of full-time students and 42% of part-time students work 35 or more hours per week (Table 503.40).

Unfortunately, despite the increase of adult learners on college campuses across the country, research has shown that colleges still disburse the majority of resources and gear the majority of academic programs toward traditional college students (Choy, 2002; Philibert, 2005; Chen, 2017). Given that adult learners have different learning needs than traditional college students, these traditional institutional structures and systems designed for traditional students "actively serve as barriers to entry and impediments to teaching practices" (Chen, 2017, para.1). Some practitioners claim that these practices "perpetuate limited progress" for adult learners and causes adult learners to feel stigmatized by the "secondary student status" these antiquated systems and structures create (Chen, 2017, para. 3). For community college educators and administrators tasked with designing college programming to support diverse student populations and increase student retention, the needs of adult learners cannot continue to be ignored.

Enrollment increases in the community college system stalled out in 2012, which has resulted in a decade-long decline in overall enrollment (NSC, 2023). This decline has been felt across the nation. In addition, the pandemic of COVID-19 exacerbated the dip in enrollment from 2019 to 2021 (NSC, 2023). Some Arkansas community colleges are seeing an uptick in

enrollment from Fall 2021 to Fall 2022 (IPEDS, 2023), and they are desperate to hold onto these increased numbers. It is more important than ever for colleges to provide services and effective programming for students who are choosing to enroll, despite the challenges they face.

Given these radical changes in the landscape of higher education in recent decades, institutional leaders must be ready to answer important questions about how they are meeting the needs of this increasingly diverse population of students. The research of this study is especially critical given that diversity among student populations within U.S. colleges and universities is likely to continue to only grow as more jobs within the U.S. workforce continue to require advanced certifications and degrees (Sutton, 2021). As more jobs require college degrees and postsecondary training, more students have no choice but to pursue higher education in order to join today's highly-educated workforce and improve their economic outcomes.

Adult Learning Needs in Community Colleges

Continuing to base college programs and policies around traditional students is problematic, considering the differing learning needs of adult learners. While some colleges and universities have begun adapting academic programming and course delivery to be more responsive to adult learners, many still refrain from doing so (Ross-Gordon, 2011). One area that highlights this discrepancy is the design of new student orientation (NSO) programs, which are intended to prepare students for success in college. Despite the majority of undergraduate students being nontraditional, most colleges continue to design NSO programs with the traditional first-year student in mind, overlooking the unique needs and learning preferences of adult learners (Chan, 2017).

To bridge this gap, it is crucial to establish direct connections between specific design elements of NSO programs and the learning needs of the diverse student population. Adult

learning theory suggests that as individuals age, their approach to guidance and learning becomes different (Knowles, 1975). Scholars argue that adult learners and traditional students exhibit distinct learning preferences, with older students often desiring more agency and control over their learning (Knowles et al., 2015). Consequently, institutions of higher learning have started shifting away from teacher-centered pedagogy and programs designed primarily for traditional college students, recognizing that these approaches may not be suitable for adult learners. Instead, there is a growing focus on programs that allow for greater self-direction (Daughenbaugh, 1985, p. 6). This shift toward instructional practices that align with adult learning principles should extend to academic programming, including NSO programs, in order to effectively meet the needs of the diverse student body they aim to serve.

By considering specific information about incoming students and adapting academic programming to meet the educational needs of adult learners, institutions have the opportunity to develop more innovative and effective orientation programs that benefit both students and the institutions themselves. To achieve this, college administrators must transition from traditional pedagogical models and embrace theories of adult learning, or andragogy, in their instructional and program design (Knowles, 1980; Chen, 2017). Taking these steps can help institutions address the high attrition rates often experienced by adult learners and create a more supportive and inclusive learning environment.

Applying Self-Directed Learning Theory to New Student Orientation Programming

Much on adult learning theory has been written that provides insight into how colleges and universities may effectively modify programs, services, and course delivery to accommodate adult learners' needs. One of the most prominent and widely-cited adult learning theories is self-directed learning theory (SDL). This theory suggests that not only do students process

information differently as they age, but learning in general is approached differently as they age (Knowles, 1975). Adult learners, in contrast to children and young adults, tend to be achievement oriented, highly motivated, and relatively independent (Cross, 1980). Self-directed learning was first formalized by Allen Tough in 1971 when he publicized “The Adult Learning Projects.” Tough (1967) explains that adult learners require opportunities to direct their own learning because they tend to be self-teachers and assume the responsibility of planning, initiating, and completing the learning themselves. In addition to a propensity toward self-direction, adult learners are highly-motivated and exhibit a strong readiness to learn (Knowles, 1975). Contemporary scholars laud self-direction as a defining characteristic of many adult learners (Merriam & Bierema, 2014; Merriam, et al., 2007), and a process in which most adults regularly engage (Kasworm et al., 2010). This theory can also be traced to Knowles’s (1970, 1975, 1980) earliest writings, which popularized self-direction as a principal assumption of adult learning. These ideas now inform contemporary approaches to andragogy, suggesting educators assume adults are progressing toward an increasingly self-directed and autonomous view of themselves (Knowles et al., 2012).

Self-directed learning theory would suggest that college programs and services provide opportunities for independent inquiry and offer adults the ability to access resources independently. Despite the paucity of research examining the relationship between student’s age and orientation programs, we know from the body of literature written on SDL theory that adult students would benefit from a more self-directed learning approach. Instead of a presentation-style approach to instruction that is typical of traditional NSO programming, adult learners would benefit from more independent and flexible learning options to be able to get the most from new student orientation.

Unfortunately, researchers in adult education have found that there have long been challenges in translating the vast research in andragogy and adult learning theory into practice (Roessger, 2017). Adult education systems have historically maintained program models that are disconnected from the theory, even though evidence-based research has shown SDL to be more effective for adult learning (Comings et al., 2003; Merriam & Bierema, 2014; Roessger, 2017). Despite an extensive focus on self-directed learning theory within adult education research, researchers have found that this approach has seldom been “systematically put to practice in adult education” (Loeng, 2020, p. 1). This disconnect between theory and practice has also largely been true for colleges and universities in incorporating self-direction into critical student programs such as new student orientations. Instead, NSO program models are principally based on expectations that adult learners will respond well to traditional pedagogical instructional practices. As such, many program models continue to be based on ineffectual pedagogical practices which ultimately results in ineffective programming for adult learners (Comings et al., 2003).

Self-Directed Learning Theory and Self-Directed Readiness

Self-directed readiness (SDR) and self-directed learning (SDL) theory are closely related concepts within the field of adult education. Self-directed learning theory posits that learners have the ability to take responsibility for their own learning and actively engage in the learning process (Knowles, 1975). It emphasizes learners' autonomy, motivation, and self-regulation in acquiring knowledge and skills (Merriam, et al., 2007).

Self-directed readiness refers to the individual's preparedness or inclination to engage in self-directed learning (Wiley, 1983). It encompasses the personal characteristics, attitudes, and skills that enable individuals to take control of their learning and direct their own educational

experiences (Tough, 1971a; Hiemstra, 1991). Self-directed readiness is often considered a precursor to effective self-directed learning. In other words, self-directed readiness reflects an individual's level of readiness and willingness to engage in self-directed learning, while self-directed learning theory provides the framework and principles for understanding and fostering effective self-directed learning.

There are various self-directed learning readiness scales and tools developed by different researchers in the field of education and psychology. These tools are used to assess and understand an individual's propensity for self-directed learning, and they can be valuable in educational contexts, especially for adult learners and in settings where self-directed learning is emphasized. One of the most widely used assessments is Guglielmino's Self-Directed Learning Readiness Scale (SDLRS), a tool to measure self-direction in learning (1977). "It is designed to measure the complex of attitudes, skills, and characteristics that comprise an individual's current level of readiness to manage his or her own learning" (Guglielmino & Associates, 1977, para. 5).

By assessing and enhancing self-directed readiness, educators and institutions can better support learners in becoming active participants in their own learning process. They can provide resources, guidance, and opportunities that facilitate self-directed learning, enabling learners to set goals, plan their learning activities, monitor their progress, and reflect on their learning outcomes.

Age

Age can play a significant role in self-directed readiness and self-directed learning. While individuals of all ages have the capacity for self-directed learning, certain age-related factors can influence their readiness and engagement in self-directed learning activities.

Adult learners often possess a higher degree of self-directed readiness compared to younger learners (Knowles, 1975; Tough, 1971; Brockett & Hiemstra, 1991; Caffarella, 1993). This is because adults typically have more life experiences, prior knowledge, and a stronger sense of personal agency and autonomy. Tough (1971) states ““almost everyone undertakes at least one or two major learning efforts a year, and some individuals undertake as many as 15 or 20” (p. 1). Adult learners may also have specific learning goals and motivations related to career advancement, personal growth, or pursuing new interests (Houle, 1961; Boshier & Collins, 1985; Brockett & Hiemstra, 1991; Candy, 1991; Guglielmino, et al., 2004).

Carpenter (2011) completed a study where she compared the demographics of students in online versus face-to-face courses. She found that online students tended to be older than those in the face-to-face, female, and had taken prior online courses.

To best meet the needs of students, educators and institutions should consider learners' age-related characteristics, experiences, and motivations when designing and facilitating self-directed learning opportunities. However, this is a near impossible feat unless colleges administered the SDLR scale to every student prior to orientation, and then used that to create different learning formats for those students. Logistics and timing alone would be a nightmare for institutions. Using age as a proxy for self-directed readiness is a more readily available measure and, therefore, a more useful one for community colleges.

It is worth noting that while age can influence self-directed readiness, individual differences within age groups are significant. Some older adults may exhibit lower self-directed

readiness, while some younger learners may demonstrate a high degree of self-directedness. Factors such as motivation, prior learning experiences, personal attributes, culture and educational context can also impact individuals' readiness for self-directed learning, regardless of their age (Frambach et al. 2012). For this reason, I will measure self-directed readiness (SDR) of all participants in the study to determine if age can and should be used as a proxy for SDR.

Empirical Evidence

Representatives from both the National Resource Center for the First-Year Experience and the American Association of Community Colleges admit there is a lack of data on outcomes of online orientations and first-year seminars (Ellis-O'Quinn, 2011). While few studies have studied the efficacy of online orientation, Ellis-O'Quinn showed GPA and retention rates of students were the same, regardless of the format of the orientation—after controlling for age, gender, race, and placement test scores. His study was completed at a rural community college in Virginia, where students were required to take orientation but could take it at any time. Students could also choose between methods of traditional (10 weeks), seminar (2 days), or distance education (entire semester). Although format made no difference, those who participated in any format had higher GPAs and were retained at higher rates than those who did not participate.

McPhail (2011) emphasized key points related to the commitment of community colleges to improve retention and increase program completion rates. These key points included the need to make completion a part of institutions' strategic plans; involve students and the community in conversations about completion; be transparent and make data-driven decisions; encourage completion; and clearly define what completion means. Mandatory orientations were advised to help facilitate this initiative. Koch and Gardner (2017) emphasized that new student orientation programs serve as one of the earliest forms of student engagement and intervention at

post-secondary institutions. As stated by Hollins (2009), “Perhaps one of the most underemphasized strategies for achieving student success within the community college is the development and implementation of an intentional, comprehensive approach to orienting new students to the college environment” (p. 15). Colleges should ask themselves what approach works best to provide equity for their students.

Innovations and Challenges in New Student Orientations

Some institutions have taken steps to provide orientation programs that are more flexible, accessible, and supportive to adult learners. Amelia Pavlik (2020) interviewed student affairs directors at two popular universities who recognized these special needs of adult learners. The University of Southern Mississippi implemented an online approach in 2018 after finding many of their new students were skipping orientation. By dropping the on-campus orientation and offering a mandatory online orientation in summer, more students had access to important deadlines and university resources. The University of Central Florida created its own online orientation for graduate students in fall 2019. Nathalia Bauer, Assistant Director of the Office of Funding, Professional Development, and Scholarship had this to say about the online orientation:

We typically have one in-person orientation and welcome event each fall in August.

While this event is great for students who could attend, all graduate students need support and information about resources. So we wanted to create something that students could access on their own schedule and when they had time to process it. (Pavlik, 2020, p. 6)

Bauer claimed that students who attend in-person orientation tend to be more excited and engaged with other students. A reason for this is that reproducing the atmosphere and relationship-building of the in-person event is difficult to do online. To remedy this, the graduate

office offers other relationship-building events throughout the year and various online events, such as workshops on personal and professional development throughout the year.

Another college, University of Colorado, also moved its freshman orientation online to reduce the amount of information students were receiving at once. Chancellor Phil DiStefano ended the mandatory, two-day campus orientation sessions in exchange for “connecting with students via short videos, and providing personalized information that makes it easier for them to assimilate, as opposed to a day-long session where they just get bombarded with information (Kuta, 2015, para. 5). A major advantage to a digital orientation like this is that students can access the materials at any time throughout the semester.

Having an online NSO is attractive to adult learners, but institutions who really focus on the characteristics of their students are able to provide the most effective orientation (Davis, 2018). Swett (2016) discussed one community college that not only took its NSO online, but did so by listening to its students and collaborating with a local business partner to customize the orientation program to better meet students’ needs. Foothills Community College students helped identify what needed to be covered in the orientation, and the business partner helped develop creative solutions for an engaging delivery. Months were spent having video conference meetings to discuss content, style, design, format, delivery, messaging, links, order, language, music, pictures, graphics, branding, symbols, discussion boards, assessments, certificates, student presenters, information consistency, and much more. The college integrated the orientation into its current tracking software, and then made it mandatory for all new students. After reviewing the participation data, Swett (2016) confirms that the students are accessing the online orientation, watching it more than once, are highly satisfied with what they are learning, and are utilizing links provided and the video resource modules.

Wilson and Minhas-Taneja (2016) highlighted the drawbacks of face-to-face orientations, such as the allocation of large time blocks, the presentation of a high volume of information at once, and forced waiting times. In contrast, Jones (as cited by Pavlic, 2020a) discussed the online orientation experience at Richland Community College, which is self-paced but structured into modules that students complete in a specific order. This online approach allows for asynchronous learning and overcomes the limitations of face-to-face delivery while still providing a guided experience.

Although some institutions argue that online orientations lack the sense of belonging and engagement found in face-to-face interactions, Herridge et al. (2020) sought to understand the differences between online and traditional orientations. Their study focused on the connection between students' sense of belonging, institutional support, academic advising support, and out-of-class engagement, all of which are associated with retention. The existing literature supports the relationship between sense of belonging, student engagement, and retention (Barefoot & Gardner, 1993; Boening & Miller, 2005; Cook, 1996; Ellis-O'Quinn, 2011; Gardner, 1986, 2001; Hollins Jr, 2009; Perigo & Upcraft, 1989; Upcraft & Farnsworth, 1984). Herridge et al.'s findings indicated that for students who experienced both traditional and online orientations, knowledge of support (academic and student services) positively influenced out-of-class engagement and sense of belonging. Notably, for students participating in online orientation, knowledge of institutional support had a stronger relationship with sense of belonging and out-of-class engagement compared to those in traditional orientation. Thus, we can infer that as long as important factors such as sense of belonging and knowledge of support are present, online orientations can achieve similar retention rates to face-to-face orientations.

For community colleges, the challenge of offering orientations online lies in replacing the community-building component that naturally occurs in in-person events. However, this challenge is more of a priority for full-time residential institutions. Community colleges have the option to focus their orientations on academic resources and knowledge of the institution. The transition to fully online or blended orientations for community colleges has resulted in increased affordability, convenience, and accessibility for students, as well as enhanced efficiency and streamlining for college staff (Mojeiko et al., 2020).

Overall, online orientations offer advantages in terms of flexibility and structure, and while they may require innovative approaches to foster a sense of belonging, community colleges have successfully utilized them to provide essential information and support to their students.

Research Questions and Hypotheses

In a recent study drawing on self-directed learning theory, Roessger et al. (2018) investigated the relationship between student age and participation in academic advising. They found that as students get older, the likelihood of scheduling an academic planning session with an advisor decreases, after controlling for outside time commitments. Their findings support assumptions of self-directed learning theory, specifically that adult learners are more independent and seek student programming that allows for flexibility and self-management.

This study seeks to build upon the research of Roessger et al. (2018) to determine if the assumption of self-direction similarly manifests in students' decisions around orientations, specifically whether they choose to attend online or on-campus new student orientations. Given that older students are assumed to have a greater propensity toward independence and

self-directed learning, this study also examines whether age is a useful predictor of modality choice for new student orientation.

The research questions guiding this study is:

1. Is there a relationship between a student's age and choice to complete NSO online?
2. Does this relationship remain after controlling for a student's work status, family status, distance from campus, and self-directed readiness?

This study will specifically investigate the age of students to determine if it is a predictor on the modality of NSO students choose. Based on self-directed learning theory and previous research found in literature, my hypothesis is that age is a predictor in a student's choice on modality. I believe adult learners are more likely to choose an online format to satisfy their learning needs.

Summary

Ultimately, if colleges and universities are to effectively address issues of student retention and low graduation rates, institutional programming crucial to student success must be appropriately adapted to meet the unique learning needs of adult learners. Orientation programs are the very "bridge, the linchpin, between the last stages of recruitment and the first stages of retention" (Shupp, 2006, p. 1). They set students up for success and teach them how to be resourceful (Brady-Amoon & Fuertes, 2011), as well as encourage persistence and commitment to the institution (Pascarella et al., 1986; Derby, 2007). Studies show, however, that only 13% of students at community colleges graduate in 2 years (NCES, 2013), while only 60% of students at 4-year colleges graduate in 4 years (AIR, 2010). American Institute for Research (2010) claims that "more than \$9 billion, over a 5-year period, is spent on these students each year by state and

federal governments, yet all that funding fails to produce a college graduate that could bring those years of education to the country's workforce” (as cited by Chen, 2022, para. 2).

Of all college enrollments, adult learners make up almost half (Chen, 2017). Given this incredible shift in demographics in recent decades, it raises compelling questions as to whether institutions are taking student demographics and their subsequent learning needs into consideration when designing critical academic programming such as new student orientations. Unfortunately, research tells us that a large proportion of colleges and universities are not adjusting their programming to meet the needs of adult learners. A survey by the American Council of Education, found that “more than 40 percent of institutions responded that they did not identify older adult students for purposes of outreach, programs and services, or financial aid” (Lakin et al., 2008, p. 12).

This is concerning given the clear link between new student orientation programming and student success. By taking into consideration student demographics and the specific learning needs of these students, institutions can deliver more effective orientation programs that benefit students and institutions alike. College administrators responsible for guiding their colleges and universities to meet institutional goals should be acutely attuned to relevant demographic shifts and current research to ensure that academic programming is aligned with best teaching practices for student populations. This lack of responsiveness in failing to adapt academic programming to meet the needs of historically underrepresented students constitutes an incredible lost opportunity cost for colleges and universities, but also represents a larger, overarching crisis of educational equity in higher education as well. This failure exposes deep-rooted issues of equity and inclusion in institutions of higher learning in the United States. If colleges and universities are not adapting to meet the needs of adult learners who have historically faced formidable

barriers just in entry to higher education, it raises important questions that carry deep social, cultural, and political implications.

Student affairs leaders can no longer afford to continue to neglect the adult learners who make up a significant proportion of all undergraduate students, particularly undergraduates at community colleges. A 2008 report by Achieving the Dream stated that students who are not “well served by their community colleges, many of them won’t have opportunities for education—and are likely to drain resources from society rather than contribute to it” (Ward-Roof, 2010, p. 62). On the other hand, when students are able to “attain their educational goals” of earning postsecondary certificates and degrees, “they improve their own lives and benefit the nation” (Ward-Roof, 2010, p. 62).

Higher education rarely remains stagnant given that institutions of higher learning reflect the constant societal and political changes in federal and state political policies, public opinion, and general demographic changes of our country (Garland & Grace, 1993). These societal changes have a direct impact on colleges and universities and “demand effective institutional responses” (Garland & Grace, 1993, p. 103). Student affairs programming is critical to both student and institutional success. If undergraduate demographics have changed so dramatically in recent years, the learning models of student affairs programming cannot continue to remain static. To create academic programming that is conducive to learning for adult learners, the “design and delivery of these programs are key to successful undergraduate experiences” (Ross-Gordon, 2011, p. 29). Faculty members, student affairs professionals, and college and university administrators cannot continue to be complacent in failing to meet the needs of adult learners, but rather have an opportunity to “play an important role as change agents” (Ross-Gordon, 2011, p. 29). Leaders in higher education can address these issues of access and

equity for adult learners by “incorporating theory and research on adult learners into college classrooms and advocating for adult-oriented programs and services on colleges campuses” (Ross-Gordon, 2011, p. 29).

This study seeks to contribute to the body of higher learning research by determining if age is a useful predictor of student participation in essential student affairs programs and services, particularly new student orientation. SDL theory suggests that adult learners, when presented with multiple modalities of learning, tend to exhibit a propensity to select modalities that allow for more self-direction. Given this assumption of self-directed learning, this research intends to utilize SDL as a theoretical framework to determine how age impacts the decision making of adult learners on community college campuses. Do adult learners, in fact, have a propensity to engage with modalities that are more closely aligned with self-directed learning practices? These are the questions this dissertation seeks to answer. With the findings of this research, I aim to help student affairs professionals and college administrators make important connections between the theory of adult learning and practices currently occurring within higher education. This research is necessary, indeed urgent, for colleges and universities to consider in order to be responsive to the needs of adult learners who have been relegated to the sidelines of higher education for too long.

Chapter 3: Methodology

Overview of Chapter

The purpose of this chapter is to introduce the research methodology for this quantitative quasi-experimental research study. Using Self Directed Learning Theory as a guide, this study aims to identify the relationship between age and choice of NSO modality, after controlling for the effects of work and family responsibilities, distance from campus, and SDL readiness.

In the sections that follow, hypotheses are listed, and the design and setting of the study are explained. Participants, instrumentation, measures, and data collection with analysis are also discussed. Lastly, internal and external validity threats are discussed.

Methods

Research Design

This dissertation employs a quasi-experimental research design to investigate the relationship between age and choice of New Student Orientation (NSO) modality among community college students. Participant will self-select into either an online NSO or an in-person NSO offered at the University of Arkansas Community College at Batesville at the start of the fall 2024 semester. Prior to beginning their chosen NSO, participants will complete a brief survey through Google Forms to record key demographic variables (e.g., age, work status, family status, location) and SDL readiness. Logistic regression models will then be created to determine how age is related to the likelihood of attending an online NSO after controlling for other relevant variables.

Research Questions and Hypotheses

This study seeks the answers to the following research questions (hypotheses follow):

RQ1: Is there a relationship between a student's age and choice to complete NSO online?

H1: As a student's age increases, the likelihood of choosing an online NSO increases.

- $H_0: \beta_1 = 0$
- $H_1: \beta_1 > 0$

RQ2: Does this relationship remain after controlling for a student's work status, family status, distance from campus, and SDL readiness?

H2: The relationship between age and NSO modality choice remains, after holding constant the variables of work status, family status, distance from campus, and SDL readiness.

- $H_0: \beta_1 = 0$
- $H_1: \beta_1 > 0$

Participants and Placement

This study takes place at the University of Arkansas Community College at Batesville (UACCB). The college enrolls just over 1300 students, including part-time and full-time students. According to the college fact book (2018), almost 50% of students are eligible for Pell Grants, and over half are considered first-generation. More than 60% of UACCB's students are considered nontraditional, that is, age 22 or older. The campus is predominantly white with less than 9% of its students identifying as Black or Hispanic. The community college has a retention rate of 53.9% and a graduation rate of 41%. The college uses a professional advising center and requires all students to meet with an academic advisor before registering for classes each semester. Students learn about NSO during their advising appointment, are made aware of the dates, and asked to choose a date or complete the NSO online. Providing NSO options allows students to choose the modality that not only fits their preference, but also aligns with work, childcare limitations, and other time constraints.

Participants for this study will be students entering UACCB, who are mandated to complete NSO. Students must attend NSO if they are first-time entering students or transfer students with less than 24 transfer credit hours. This applies to any student enrolled in 6 or more credit hours. Ages of these participants vary greatly, with the majority being recent high school graduates. With the influx of students seeking career enhancements and finishing degrees, a significant population of adult learners are placed into NSO and will likely participate in this study.

To determine a sample size with sufficient statistical power, an a priori power analysis was conducted using GPower. Parameter inputs were based on the findings of Roessger et al. (2017) and suggested a sample size of 180 would be sufficiently powered.

Measures

Independent Variable (IV)

The independent variable in this study is the age of the participants. Age will be treated as a continuous variable, measured in years. It will be measured using a student's self-reported response to the survey statement, "Please enter your age in years."

Dependent Variable (DV)

The dependent variable is the student's choice of completing a NSO online. It will be a binary variable, where 0 represents choosing face-to-face NSO and 1 represents choosing online NSO. The face-to-face NSO is a one-day, 4-hour event on campus, consisting of four sessions covering safety, expectations, technology, and campus resources. The online NSO is an electronically-conducted orientation program using Blackboard management system, along with videos, presentations, and assessments students must complete. This variable will be measured using a student's NSO choice during her or his advising session.

Control Variables

The control variables are family status, work status, distance from campus, and self-directed learning readiness. These variables will be included in logistic regression models to ensure they are not confounding the relationship between age and modality choice. *Family status* is a categorical variable with four levels: a) single with no dependents, b) single with dependents, c) married or partnered with no dependents, and d) married or partnered with dependents. Family status will be measured by a participant's response to the following survey statement, "Select the response that most closely describes your family status." Single with no dependents will serve as the reference group. *Work status* is a categorical variable with four levels: a) not employed, b) full-time employed, c) part-time employed, and d) other. Not employed will serve as the reference category. Work status will be measured by a participant's response to the following survey statement, "Select the response that most closely describes your work status." Not employed will serve as the reference group. *Distance from campus* is a continuous variable that is measured by a participant's response to the following survey statement, "Please note approximately how many miles you live from campus." *Self-directed learning readiness* (SDLR) is a continuous variable that is measured by taking the sum score of a participant's survey responses to Guglielmino's (1977) 58-item SDLR scale. Scores may range from 58 to 290.

Materials

The complete Self-Directed Learning Readiness Scale (SDLRS) can be found in Appendix A. It consists of 58 items where participants are asked to read a statement and then choose the degree to which that statement accurately describes the participant's attitudes, beliefs, actions, or skills. Examples of statements to which participants are asked to respond are as follows:

- I'm looking forward to learning as long as I'm living.
- In a classroom situation, I expect the instructor to tell all class members exactly what to do at all times.
- I can tell whether I'm learning something well or not.

Likert response options range from 1-5: 1) Almost never true of me; I hardly ever feel this way. 2) Not often true of me; I feel this way less than half the time. 3) Sometimes true of me; I feel this way about half the time. 4) Usually true of me; I feel this way more than half the time. 5) Almost always true of me; there are very few times when I don't feel this way.

The SDLRS is the most widely used assessment in the field of self-directed learning (Merriam, Caffarella, & Baumgartner, 2007). It is a commonly used tool for assessing the readiness of learners to pursue self-directed learning. Dr. Lucy M. Guglielmino (1977) developed this self-report tool to measure the constellation of attitudes, abilities, and characteristics that comprise readiness to engage in self-directed learning. She describes self-directed learning readiness as follows:

“It is the author's assumption that self-direction in learning exists along a continuum; it is present in each person to some degree. In addition, it is assumed that self-direction in learning can occur in a wide variety of situations, ranging from a teacher-directed classroom to self-planned and self-conducted learning projects. Although certain learning situations are more conducive to self-direction in learning than are others, it is the personal characteristics of the learner-including his [or her] attitudes, his [or her] values, and his [or her] abilities-which ultimately determine whether self-directed learning will take place in a given learning situation. The self-directed learner more often chooses or

influences the learning objectives, activities, resources, priorities, and levels of energy expenditure than does the other-directed learner.” (Guglielmino, 1977/78, p.34)

The Self-Directed Learning Readiness Scale (SDLRS) is a well-established instrument for assessing individuals' readiness for self-directed learning. It has undergone rigorous validity and reliability testing to ensure its accuracy and consistency in measuring the intended construct. As the scale's developer, Dr. Guglielmino was responsible for conducting the initial validity and reliability testing during the scale's development. This involved ensuring that the items on the scale were relevant and comprehensive in measuring self-directed learning readiness (content validity), analyzing the underlying dimensions of the construct through factor analysis (construct validity), and examining the scale's ability to correlate with other measures of self-directed learning or related variables (criterion validity).

Additionally, Guglielmino used test-retest reliability testing to assess the scale's stability and internal consistency reliability testing to evaluate the interrelatedness of the items on the scale. These efforts were instrumental in establishing the validity and reliability of the SDLRS, making it a widely accepted and frequently used instrument in the field of adult education and self-directed learning.

Overall, the SDLRS has demonstrated accurate validity and reliability across multiple studies (Delahaye & Smith, 1995; Durr, 1992; Finestone, 1984; Graeve, 1987; Hassan, 1981; Long & Agyekum, 1984; McCune & Guglielmino, 1991; Posner, 1991; Russell, 1988), making it a robust and widely used tool for assessing individuals' readiness for self-directed learning.

Data Collection

New students must meet with academic advisors to enroll in classes and register for a NSO date. During this appointment, academic advisors will notify students of the study and provide instructions to participate. At that time, if students choose to participate, academic advisors will provide a survey link to the student.

Delivery of the Survey

The survey for data collection will be administered electronically using Google Forms, a widely accessible and user-friendly online survey platform. The choice of Google Forms offers several advantages, including ease of use, efficient data collection, and secure data storage.

Data will be collected through surveys administered during the advising and registration process that precedes all NSO dates. The survey will first include an informed consent form detailing all aspects of the study and advising participants of their rights to withdraw at any time without consequences. If consent is given, the survey will then present participants with items that measure each of the study's defined variables. Students will also note whether they intend to attend the NSO online or in-person.

Timing of Survey Delivery

The survey will be initially distributed to potential participants via a link during their first appointment with an academic advisor. Appointments can vary from March to August preceding the fall term. Advisors will provide to the researcher the email address of all interested participants. The data collection period will extend into the fall semester, ending on the last date for schedule changes. This allows participants sufficient time to respond, while also including any late registrants into the data collection.

Some participants may delay or forget to complete the survey. To maximize response rates, a systematic follow-up process will be implemented. Approximately one week after indicating interest in the study, an email reminder will be sent to those who have not yet completed the survey. This reminder will reiterate the importance of their participation. A second reminder email will then be sent approximately one week later to those who have still not completed the survey. If some participants remain unresponsive after the second reminder, a final reminder email will be sent in the last week of the data collection period. This email will express appreciation for their participation and will emphasize the closing date of the survey.

Data Analysis

Two logistic regression models will be created to determine the relationship between age and NSO modality choice. The first model will describe the change in the odds of choosing an online NSO for each additional year of student age. The second will do the same, yet control for salient variables such as family status, work status, distance from campus, and self-directed learning readiness.

Logistic regression is used to determine how the odds of one event occurring (e.g., choosing an online NSO: yes or no) vary as a function of an independent variable (e.g., student's age). It uses maximum likelihood estimation to produce coefficients that can determine the probability of an event occurring. All output will be converted to odds ratios and predicted probabilities to aid in interpretation.

Logistic regression is a good fit for this research study because it can be used with this study's binary outcome: whether or not a student chooses an online NSO. It also can be used to simultaneously consider the effects of this study's independent variable (student age) and its control variables listed in research question 2.

To answer research question one, (Is there a relationship between a student's age and choice to complete NSO online?), I will construct model one as follows:

$$\hat{Y} = \ln(P/P-1) = a + b_1X_1$$

where \hat{Y} is the odds of choosing online NSO; a is the intercept; b_1 is the coefficient for student's age and X_1 is the independent variable, student age. This model aims to understand whether there is a relationship between a student's age (X_1) and their choice to complete NSO online, represented by the natural logarithm of the ratio $P/P-1$.

If the coefficient b_1 is significantly different from zero and positive, it would suggest that as students' ages increase, they are more likely to choose to complete NSO online. If b_1 is significantly different from zero and negative, it would suggest the opposite: as students' ages increase, they are less likely to choose to complete NSO online.

To answer research question two, (Does this relationship remain after controlling for a student's work status, family status, distance from campus, and SDL readiness?), I will construct model two as follows:

$$\hat{Y} = \ln(P/P-1) = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + b_6X_6 + b_7X_7 + b_8X_8 + b_9X_9 + E$$

where \hat{Y} is the odds of choosing online NSO; b_2 , b_3 , b_4 , b_5 , b_6 , b_7 , b_8 and b_9 , are regression coefficients; X_1 , X_2 , X_3 , X_4 , X_5 , X_6 , X_7 , X_8 , and X_9 are the control variables, and E is the error rate. The independent variable X_1 is age, the focal predictor. Control variables include family status (single with dependents, married or partnered with no dependents, married or partnered with dependents), work status (full-time employed, part-time employed, other), distance from campus, and self-directed learning readiness, respectively.

In order to communicate this mathematic computation in a comprehensible way to educators, I will convert this to a predicted probability equation. This formula allows me to determine the probability of a student choosing online NSO based on age:

$$P = \frac{e^{a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + b_6X_6 + b_7X_7 + b_8X_8 + b_9X_9}}{1 + e^{a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + b_6X_6 + b_7X_7 + b_8X_8 + b_9X_9}}$$

In a binary logistic regression model, there are several assumptions researchers make to ensure the validity and reliability of the results, one of those being the assumption of linearity. Testing for the linearity of the logit in a binary logistic regression model involves examining the relationship between the independent variables and the log-odds (logit) of the dependent variable. I will assess linearity by plotting the independent variable against the logit and visually inspecting the scatterplot for linearity. I will ensure there has been no violation of the linearity assumption. If necessary, I will employ the Box-Tidwell test to further assess the linearity assumption.

Ethical Considerations

Ethical approval will be obtained from the Institutional Review Board (IRB) before data collection. Informed consent will be obtained from all participants by using an electronic consent form. Participants will be provided detailed information on the study and its purpose before beginning the survey. Participants will be asked to check a box, agreeing to participate in the survey before gaining access to it. The consent form will clearly state participation is voluntary and participants can withdraw at any time. The consent form will also emphasize participants' privacy and confidentiality throughout the study.

Limitations

The quasi-experimental design does not involve random assignment to treatment groups, which may limit the ability to establish causality. Additionally, the study is limited to participants from a single community college, which may affect the generalizability of the findings to other institutions.

Internal and External Validity

Threats to internal validity include attrition and experimenter bias. Students will complete the survey before attending the NSO. There is some chance students will never attend the NSO or even attend the college, even though they have indicated on the survey the method of NSO they will complete. While I cannot identify who dropped out of the study and remove them completely from the study, I will conclude with how many students completed study and evaluate their choice of modality.

As the researcher who believes students should be able to choose the modality of the mandatory NSO, I understand I will look for positive correlations with online NSO. Knowing this, I will avoid trying to interpret the data during the study, and I will double-check my data coding, data entry, and statistical analysis. I will also refer to my committee for critical feedback on potential bias.

A possible external threat is the Hawthorne effect where my participants will act differently solely because they know they are being studied. Understandably, students may think the information they share on the survey will be shared with the college. Since the college requires a waiver to complete NSO online, students might list that their work and family responsibilities prohibited them from attending in person. They may fear the college will deny the waiver if they shared work or family obligation did not prohibit them from attending NSO on

my survey. Therefore, I will emphasize that the information on the survey will be kept confidential and will not be shared with the college. Additionally, students' names will not be collected on the survey. Only results of the overall study will be shared with the college.

Summary

This chapter discussed the research questions and hypotheses of the study, along with the methods used to test the hypotheses. The design of the study was explained using logistic regression, with checks for assumptions made. The setting and the sampling of participants were discussed, using GPower to determine the appropriate number of participants. It was determined the number of participants required to produce a medium sized effect was 98.

The instruments being used in this study is a Google form and Dr. Lucy M. Guglielmino's Self-Directed Readiness Scale. The Google form will gather characteristics about the participants, as well as whether work and family obligations, and distance the student lives from campus prohibited the student from attending NSO in person. The Self-Directed Readiness Scale asks participants to read a statement and then indicate the degree to which that statement accurately describes their own attitudes, beliefs, actions or skills.

As part of the methods section, independent and dependent variables were conceptually and operationally defined. Data collection was broken down by who and when the data was to be collected. Statistical methods were identified to test each hypothesis and assumptions were assessed.

Finally, concerns of internal and external validity were discussed. Although threats of attrition, experimenter bias and Hawthorne effect are present, I have taken precautionary steps to account for them.

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Appendix A: Self-Directed Learning Readiness Scale (SDLRS)

The Self-Directed Learning Readiness Scale (SDLRS), developed by Guglielmino (1977), is a widely recognized assessment tool designed to measure an individual's readiness for self-directed learning. The SDLRS consists of a series of items that respondents answer to evaluate their self-directed learning abilities and tendencies. Respondents rate their level of agreement with each item on a scale, typically ranging from "Strongly Disagree" to "Strongly Agree."

The SDLRS provides insights into the individual's cognitive and affective readiness for self-directed learning. It assesses factors such as a learner's motivation, self-control, self-management, and willingness to take responsibility for their own learning. The scale is often used in educational and psychological research to understand and predict a person's readiness and capability for self-directed learning.

Due to copyright restrictions, the complete SDLRS is not included in this appendix. Researchers interested in using the SDLRS for this study or any other studies should obtain the scale from <https://www.lpasdlrs.com/>.