

IT HAS BEEN A LONG TIME COMING: SUPPORTING ADULT WOMEN LEARNERS'
PERSISTENCE IN COMMUNITY COLLEGE

By

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ABSTRACT

This study explores the impact of a grassroots intervention on the persistence of adult women learners in North Carolina community colleges, with a focus on pre-nursing students. Recognizing the unique challenges these students face—balancing work, family, and academics—the intervention revised the student success coaching model to provide tailored support. Using a qualitative research design, the study engaged institutional stakeholders through semi-structured interviews using a photovoice method with a poster exhibit to identify barriers and effective interventions. Findings revealed pre-nursing students experienced limited faculty interaction outside of advising, highlighting the need for early relationship-building, proactive coaching, and holistic support. Participants emphasized the importance of caring, accessible faculty, advisors, and emotional support in overcoming barriers to success. Findings also indicated that success coaching fostered strong relationships, provided individualized guidance, and bridged gaps between faculty and student services. The revised model introduced a dedicated

pre-nursing success coach and advisor. The study recommends integrating success coaching as a standard practice in community colleges, with an emphasis on faculty collaboration and early exposure to campus resources. Future research should explore the long-term impact of success coaching across diverse community college contexts and examine how institutional culture influences the persistence and success of adult women learners.

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PERSISTENCE IN COMMUNITY COLLEGE

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DEDICATION

Every time I became frustrated or overwhelmed, I thought of my participants, and I dug a little deeper. This work is dedicated to you and your hard work. It may be a long time coming, but you will get there.

This research is also dedicated to every woman who has felt she had no choice, worked late, felt trapped, and tried to fight her way out of a dead-end job. The system is not designed for our success, and we all have different college journeys. Different from younger students, from men, and from each other. I hope to have given a voice to adult women learners and conveyed the feelings that women don't know how to put into words. We all deserve to be seen and heard.

I also dedicate this to my daughter, Ashley. You are an adult woman learner. I hope to inspire you, that you can do anything you want. You are fierce, brilliant, dedicated, loyal, and successful. I want to be just like you when I grow up. It has done amazing things for my confidence when you brag about my research. When you were so impressed by the poster exhibits and started your PhD journey.

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CHAPTER 1: INTRODUCTION

Although women represent most adult learners in higher education, only 14% of community college students are adults between the ages of 25 and 44 (MacDonald, 2018; U.S. Department of Education, National Center for Education Statistics, 2021). Many adult women learners are first-time college students, and 60% seek some degree related to career opportunities or improvements. While the trend in education predicts the adult women learner population will continue to show growth, they experience a high withdrawal rate in the fundamental gateway courses, and 67% drop out with no degree (Gulley, 2021). Often, adult women learners state they remain internally motivated and cite reasons they pursue higher education as a desire to achieve independence and earn a higher wage, with 43.6% reporting improvement to employment and 32% reporting a passion for a different career (Crounse et al., 2018; Fairchild, 2017; Mallman & Lee, 2017; Steinhauer & Lovell, 2021; Zart, 2019). While adult learners are motivated, experiencing limited success in fundamental coursework often derailed their progress and, for some, spurred a crisis of confidence, a challenge to resilience, and a decrease in self-efficacy (Margarit & Kennedy, 2019; Sagna & Vaccaro, 2022; Zart, 2019). Historically, age existed as the distinguishing factor between the normative traditional learner and those learners categorized as non-traditional. However, the definition of a non-traditional student continues to evolve, creating a paradigm shift encompassing learners under 25 who meet various outlier situations, including marriage, having dependents, or a delayed start in higher education.

Adult learners may experience concerns that prohibit access to opportunities. Among the reasons they express for stopping out, 23% of adult learners report poor spouse support, 81% desire library access on the weekends, 53% report a desire for an on-campus counselor, and 39% desire a computer course at the beginning of their study (Gulley, 2021; MacDonald, 2018). This

inquiry served to identify the phenomenon preventing adult women learners' persistence and success in gateway and general education science courses and sought the perspectives of the adult women learners at Pineland Community College (a pseudonym) regarding their college experience and determined what scaffolding they desired to decrease their withdrawal rates in these courses.

At Pineland, the curriculum pathway population was broken into subgroups: 44% traditional learners, 34% learners under 18, and 21.8% adult learners (see Figure 1). Adult women learners who must take at least one gateway course represent a minoritized population at 12.8% of the curriculum population (see Figure 2). While adult women learners represent a small cohort of the entire curriculum program, they paradoxically comprised the largest cohort of adult learners at 81% (see Figure 3). Although women represent most adult learners, this study categorized adult women learners as minoritized due to the limited population size of adult women learners relative to other populations, the sociocultural constructs of womanhood, and implicit gender bias (Cislaghi & Heise, 2018).

Most students enrolled in curriculum pathways must complete a gateway course in English, and some have additional requirements in math or science. The adult learner population experiences a substantial lack of success in the gateway and general education courses compared to other populations disaggregated by age (see Table 1; North Carolina Community Colleges, 2022). Decreasing adult women learners' withdrawal rate in gateway and general education science courses to increase persistence improves the institution's overall college success rate. Over the 2020-2021 and 2021-22 semesters, 55% of adult women learners at Pineland received a non-successful grade in the seven gateway and general education science courses selected for

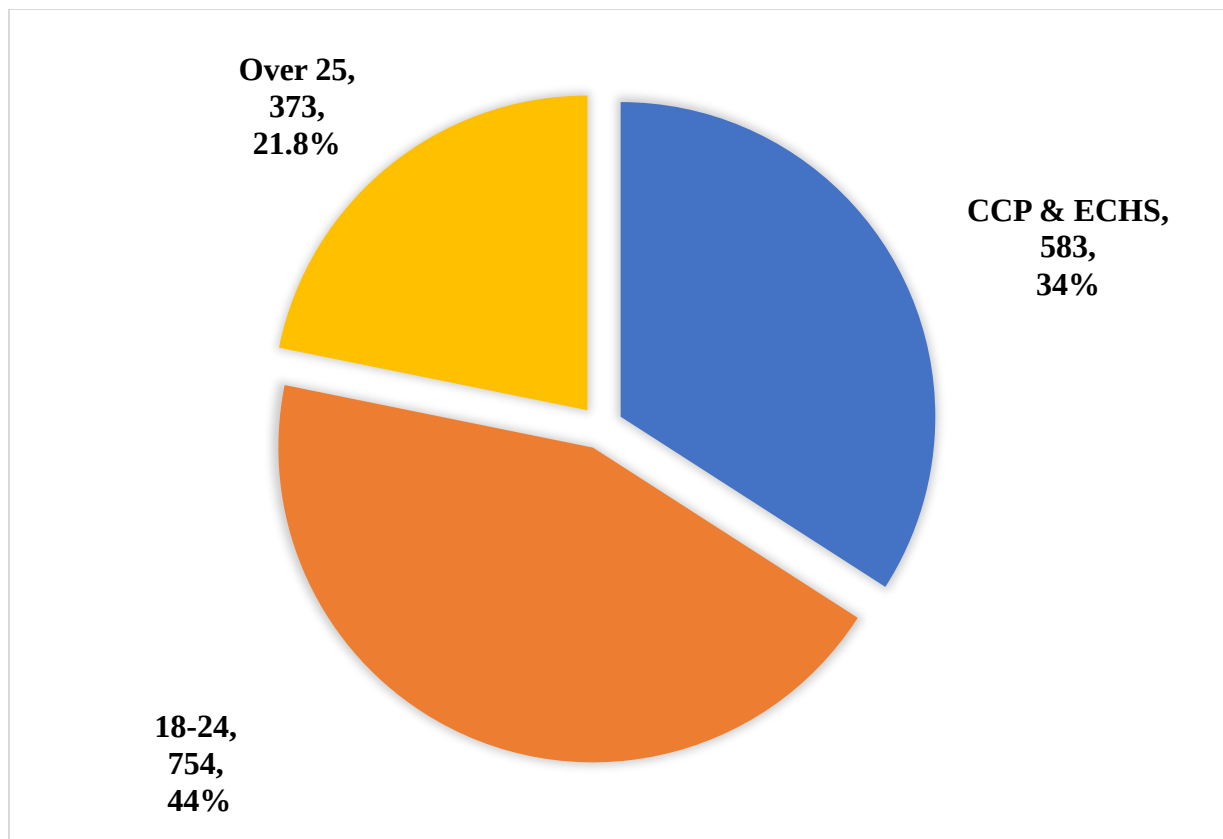


Figure 1. Curriculum Spring 2022.

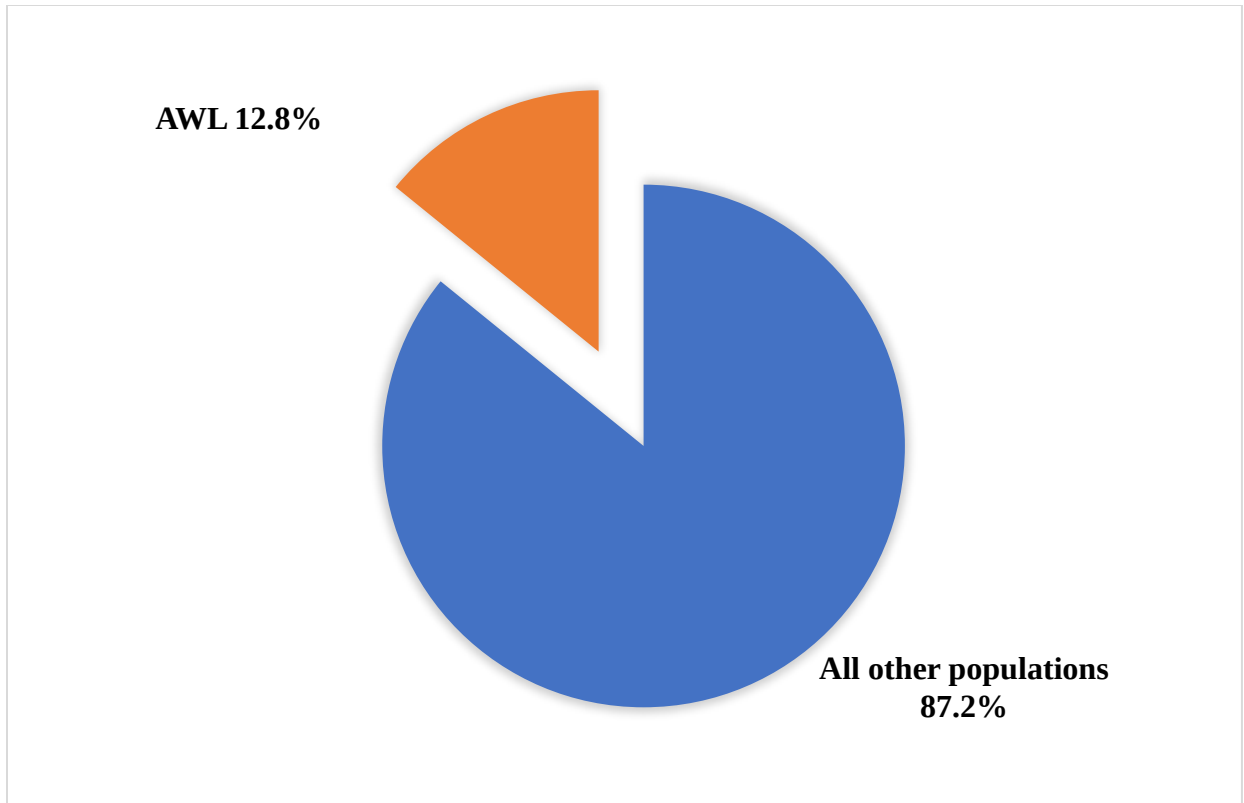


Figure 2. Adult women learner population in gateway courses, excluding college transfer.

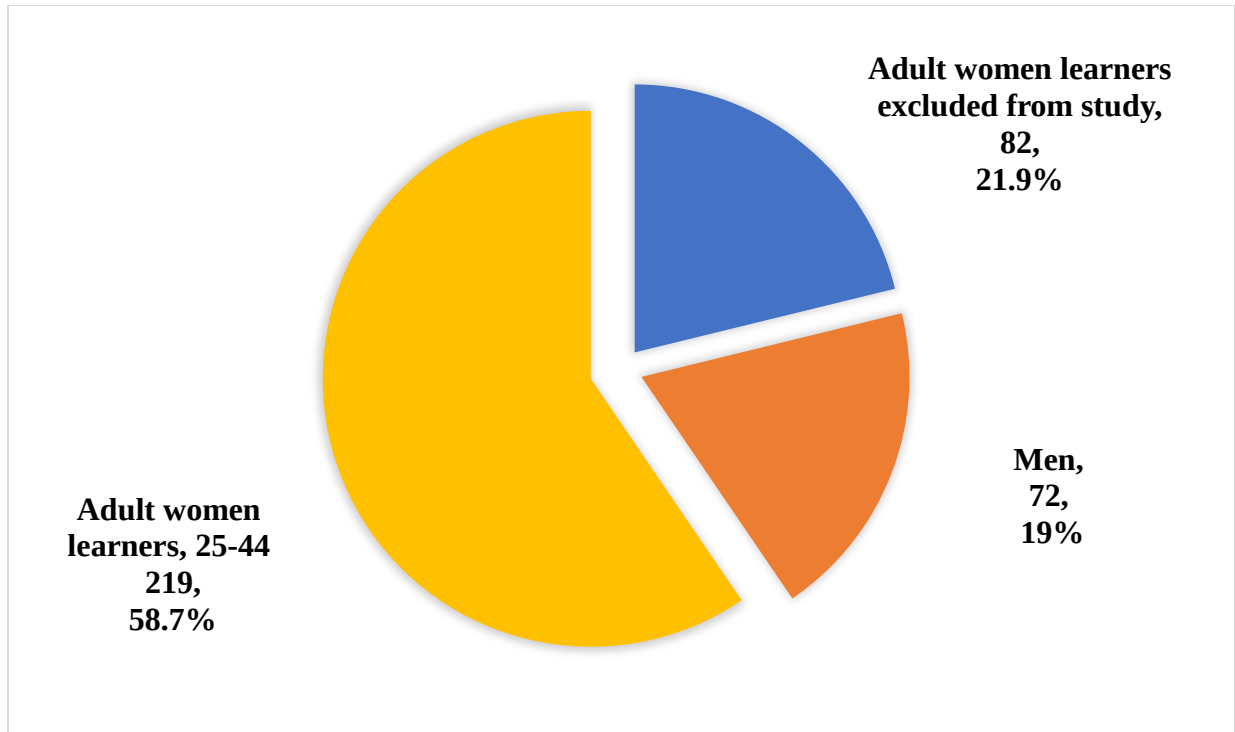


Figure 3. Breakdown of adult learner population at Pineland.

Table 1

Withdrawal Rates for Selected Courses 2020-2022

Population	Total Number of Students	Withdrawal %
20- 21 High school students	495	11.3
20- 21 Learners 18-24	655	23.9
20-21 Adult Learners 25-44	208	38.9
21- 22 High school students	477	8.1
21- 22 Learners 18-24	597	25.6
21-22 Adult Learners 25-44	212	45.7

Note. n = 2,644.

this study. The selected courses are Eng111, ENG 112, BIO168, CHM092, CHM151, MAT110, and MAT171. A student withdrawal prior to the 70% point earns a W; after the 70% point the student earns a WP if passing, or WF. For this inquiry, all withdrawal types are counted in the withdrawal statistics due to the limited number of WF and WP earned in AY20-22 (see Table 2). The course ENG110 was removed from the course catalog in AY2021-22, and sections were not offered in AY2020-21. While the course was offered in 2022-23, the section was canceled from lack of enrollment.

While Pineland offers resources to aid students, it was unclear to what end they are accessible and tailored to meet the needs of adult women learners, as there was no evidence that the institution had explored these needs. This study sought to decrease the withdrawal rate for adult women learners in gateway and general education science courses by examining the college experiences of adult women learners at Pineland to determine what acts as a barrier to persistence. Further, this study designed and implemented a targeted program to address the needs of these learners as identified by adult women learners. This study informs rural community colleges about methods to support adult women learners' persistence in gateway and general science courses.

This chapter explores the context of Pineland within this study by providing data regarding the focus of practice, the research questions, and the inquiry partners. Further detailed are the scope and limitations of the research and the significance of the study to increase equity for adult women learners.

Table 2

Success Rates for Selected Courses 2020-2021 Ages 25-44 Women

Courses	Pass	Fail	W	WE	WF	WP	Pass %	Fail %	W %
BIO-168	28	6	10	1	1	1	60	12	28
CHM-092	11	2	14	1		2	37	6	57
CHM-151	4		4			3	36		64
ENG-111	24	12	16	1	3		43	21	36
ENG-112	24	6	11				57	14	29
MAT-110	4	3	6				31	23	46
MAT-171	2	1	5		1		22	11	67
Total	97	30	66	3	6	6	46	15	38.9

Note. n = 208.

Background of Focus of Practice (FoP)

This inquiry addressed the need for increased success of adult women learners at Pineland, evidenced by the high withdrawal rate in select gateway and general education science courses compared to other learner populations. The inquiry intended to increase the persistence of adult women learners at Pineland, which may have impacted overall success rates for the institution in gateway and general education science courses. Within the community college system, all curriculum students must complete at least one college transfer English course regardless of program. As these courses are required, they are labeled gateways, and non-success prevents a student's progression. North Carolina instituted the Reinforced Instruction for Student Excellence (RISE) placement program for all community colleges in 2020 to assist success rates in gateway courses and avoid attrition. RISE was designed for students needing remediation and incorporates required corequisites instead of prerequisites for students to scaffold student success (North Carolina Community Colleges, 2019).

Within the North Carolina Community College System Office (NCCCSO), comparisons regarding the success rates of various learner populations in gateway math and English are made between like-sized institutions. These cohort comparisons of first-time students exclude adult learners who have transferred between institutions, are returners from a previous stop-out, or were enrolled part-time in prior semesters and withdrew from courses, interrupting the continual semester-to-semester flow and cohort inclusion. Due to the requirements of cohort construction, institutions with small numbers of adult students and rural campuses like Pineland are often excluded from the data collection dashboard tools. For example, fewer than 20 adult women learners at Pineland are represented in the 2018 study of success in College Level English, rendering them statistically insignificant and excluding them from the Dashboards (North

Carolina Community Colleges, 2022). The success reported to the NCCCSO needed to be more accurate for some institutions and comparable across the community college system or between like-sized peers. When the NCCCSO works with stakeholders outside the system, such as The Belk Center's NC (North Carolina) Reconnect program, institutions like Pineland are not the initial choice to partner with to increase adult learner persistence. Also, because of the population's limited size and success rate, adult learners are excluded from Pineland's research efforts to increase student success.

This study focused on adult women learners ages 25-44 in attendance at Pineland who were enrolled in at least the second semester of study and have completed, attempted, or were enrolled in one gateway or general education science course. This study stems from the limited passing rates for these learners resulting from a high withdrawal rate compared to other learner populations in gateway and general education courses, preventing persistence to completion. This inquiry intended to provide adult women learners with access to support and resources to increase persistence in their educational pursuits at Pineland.

Context of Study

This study was conducted at a small, rural community college in the southeastern region of North Carolina. The mission of Pineland is "to provide accessible and affordable education, workforce training, and lifelong enrichment." A key focus of the institution was training for the workforce and enrichment, and the selection of the local community college by non-traditional students follows the open admission policy. Pineland offers 53 programs offered face-to-face, online, and through hybrid delivery methods, with a high number of part-time students. Pineland grants associate and terminal degrees to assist learners in achieving workforce development and training while enhancing the local economy. The college admits approximately 1,700 students

per semester. Pineland desired to maintain its positive image within the local community. It wished for recognition as serving the needs of the county and as having an attractive campus, an active Foundation Board, and an effective Board of Trustees. Many prominent members of the community, faculty, and staff graduated from Pineland. Establishing and sustaining a strong relationship with the local high schools and presenting the institution in a manner that reflects a good image remains at the forefront of the institution's culture.

Policies and services at Pineland focus on traditional and high school learners, as the campus does not provide access to childcare. Additionally, should a student need to bring a child on campus to attend class or access tutoring or library resources, there are no child-friendly locations. Students have expressed frustration at the lack of compassion and a lack of confidence and preparedness in academics, and they questioned their ability to succeed (Chen, 2017; James, 2022; Zart, 2019). Further, I have heard of adult women students that needed additional co-requisites or to repeat gateway coursework because of a previous stop-out or gap between high school and college due to life events, citing children, work, and taking care of business as reasons. As a result, many learners experienced delayed entry into specific programs of study, which increased time to completion and attrition (Margarit & Kennedy, 2019; Simi & Matusitz, 2016). Historically, Pineland's support and resources are open during regular work hours. As the campus was available in the evening for continuing education services, I have made allowances for adult women learners to come to the library after hours to provide them the opportunity to pick up or return equipment, enroll in classes, and attend tutoring; however, not all departments make allowances.

At Pineland, a local decision was made to stop offering sections of ENG110 in AY2020-21 for the technical programs and to require curriculum pathways complete ENG111. In Spring

2022, 58.7% of adult women learners (between the ages of 25-44) in curriculum programs were required to take ENG 111. An additional gateway course required in 39% of the curriculum programs, was either science or math. Health programs were the dominant program of study for adult women learners in Spring 2022 at 51.6% of the population, with 31% enrolled in a nursing program. This was the only program pathway requiring three gateway courses at Pineland: ENG111, BIO168, and 169. Before acceptance into the nursing program, all learners must have completed two prerequisites, CHM092 and BIO110. These must have been completed within the past ten years. High school completion qualifies. Adult women learners who enroll ten years after high school must complete these courses before acceptance into the nursing program and were coded as pre-nursing, which caused an impediment to program enrollment. As a result, adult women learners in nursing with a ten-year gap since high school must complete five gateway courses. Although Pineland desired to increase economic and workforce development in the community, there was a gap in persistence for adult women learners. This gap stemmed from a high rate of withdrawals in gateway and general education science courses compared to other learning populations.

This was a social justice issue, as Pineland's adult women learners directly impacted the college's overall success but are excluded from state data. Participants involved in this study were Pineland adult women learners between the ages of 25-44 in a curriculum program, excluding college transfer. Implicit gender bias and the constructs of womanhood and intersectionality cause inequity for adult women learners; this study explored whether this phenomenon occurred at Pineland (Carnes et al., 2015; Lynch, 2008; Malisch et al., 2020). Further, this study sought to address social justice issues identified by adult women learners that may have impacted them differently from other learners. Through this study, I sought the voices

of these women to translate needs from their perspective into practices that holistically serve the adult women student population. The results of the intervention reflect the specific learner population; therefore, the findings may not have generalized across the broader adult learner population at Pineland and other community colleges.

Statement of Focus of Practice

The focus of this inquiry was to determine barriers identified by adult women learners to design and implement measures to increase persistence in gateway and general science education courses. The cause of the adult women learners' high withdrawal rate was unknown at Pineland; however, the literature finds that adult women learners commonly experience feelings of invisibility and imposter syndrome as institutions typically align curriculum services for the traditional student and continuing education services for the adult learner (Fairchild, 2017; Yang & Venezia, 2020). At Pineland, there are programs for many specific populations of students, including minority male success coaching, the Juntos program for Latino students, scholarships designed for Hispanic/Latino heritage students who are unable to complete the FAFSA (Free Application for Federal Student Aid), a tuition-free program for students dually enrolled in a North Carolina high school, and aid for adult learners not enrolled in curriculum programs. None of these programs are targeted toward adult students. In addition, support services post-COVID-19 have not been offered after regular work hours, including Distance Learning helpdesk, library, tutoring, advising, and Student Services. This inquiry identified the issues Pineland's adult women learners perceive as the cause of the high withdrawal rate in gateway and general education science courses.

By group labeling students as non-traditional, the institutions may have perceived barriers such as low expectations from faculty and peers, increased requirements for developmental

coursework and under-preparedness, and presumed full-time employment with part-time enrollment (Gulley, 2021; Koch & Rodier, 2016). Some institutions create support programs to address and remedy non-traditional student deficits; however, this binary label minoritized and impeded these students' persistence to completion and added to their withdrawal rate. Pineland had not studied the adult learner impact on the institution's success. The North Carolina state Dashboards rendered Pineland's adult learner population insignificant in curriculum courses due to the lack of student success, thereby minoritizing adult learners who remain unacknowledged by the campus community (North Carolina Community Colleges, 2022). The institution had conducted no study to determine how to increase this population's success rate or retention.

Adult women learners continue to have one of the highest student growth rates in higher education, with the least success in required courses due to issues with adapting to the role of the learner while balancing other life duties (Lynch, 2008; Margarit & Kennedy, 2019). Many adult women learners experience the challenge of ageism as a barrier to success, defined as the stigmatization of mature students (Fairchild, 2017; James, 2022; Mallman & Lee, 2017; Simi & Matusitz, 2016). Once enrolled, incorporating the new student identity into the adult learners' other identities, which includes employment, also acts as a barrier. Data from the National Survey of Student Engagement (NSSE) indicate that 66% of first-year students aged 21 and older are first-generation, compared to 38.5% of traditional learners (Rabourn et al., 2018). Also, before the pandemic, 26.6% of adult learners reported taking all coursework online as opposed to 0.5% of traditional learners. In the Spring of 2022, adult women learners at Pineland were enrolled in the following programs of study; 51.6% health programs, 20% business and education, 15.5% human services, and 12.7% other programs.

Learners experiencing academic difficulties through the gateway and general education science course must retake it in the case of a D/W/F, as there was no academic recovery program. If the difficulty was not in ENG111, learners may have elected to change the program. Tutoring was offered in person during regular business hours. In Spring 2023, Upswing, an online drop-in professional tutoring program, was launched in hopes of increasing learner success. Institutional barriers suggested in the literature include Distance Learning, which may have limited student interaction with peers and faculty, something all students grappled with during the COVID-19 pandemic (Bertolini, 2022; Chen, 2017; Renner & Skursha, 2022). In the greater Pineland area, high-speed internet connectivity was limited, and institution-issued hotspots are only sometimes successful in helping students overcome this concern. Last, there are unique barriers to persistence experienced by adult women learners, including balancing the student-mother role, school sabotage tactics by life partners, and intimate partner violence, which had not been recognized as an issue at Pineland (Sanga & Vaccaro, 2022; Smith, 2017; Stone & O'Shea, 2019; Voth Schrag & Edmond, 2018b).

There was a breadth of literature documenting adult women learners' perceptions of the challenges, bias, and stressors they face, as well as the need to develop and provide access to community resources and institutional supports specifically for adult women learners that support their success and increase persistence. Several are discussed more fully in Chapter 2. There was no study thus far that correlates evidence demonstrating the perception of adult women learners' community college experience with the causes of the low persistence in gateway and general education science courses. The purpose of this qualitative participatory action research study was to design, implement, and assess an intervention strategy to increase

the persistence of adult women learners in gateway and general education science courses at Pineland.

FoP Research Questions

Building on the identified focus of practice and the intention of this inquiry, the following research questions guide this focus of practice inquiry:

1. What do adult women learners perceive as supports and hindrances in their college-going trajectory in gateway and general education science courses?
2. What intervention(s) can be implemented to increase the persistence of adult women learners in gateway and general education science courses?
3. What are the effects of a customized intervention designed to increase the persistence of adult women learners in gateway and general education science courses?

Overview of Inquiry

The purpose of this qualitative participatory action research study was to design, implement, and assess an intervention program to increase the persistence of adult women learners in gateway and general education science courses at Pineland. The inquiry was conducted through a three-phase research design. The investigation began with gathering baseline data and meeting with inquiry partners, which I explore more in-depth in Chapter 3.

Background data were collected in the form of secondary data for heuristic purposes to identify the existence of the problem of practice and determine the nature of the problem. A pilot study was designed to establish the feasibility of the research methodology, the recruitment of participants, and their subsequent willingness to take and share personal stories and information through photos. Adaptations to the design were established and instituted in Phase I.

Phase I addressed the first research question. Adult women learners were recruited, and a confidential, individual, semi-structured photovoice interview was held to explain the purpose of the study and the photovoice design, develop rapport, and obtain informed consent. The photovoice design encourages participants to self-select and share digital images and convey personal stories about who and what was occurring in the images. The purpose of the design was to act as an aid for participants to feel comfortable confiding details about their experience with a stranger. The intention was that the photos represent the strengths and hindrances of their college experience. Reasons adult women learners listed on drop forms were sought from the registrar. The photos were exhibited to stakeholders in the Learning Resource Center. Next, coding and analyzing themes from the interviews and images occurred.

In Phase II, the intervention strategy was developed to address the second research question and used the baseline data collected, themes, and meaningful conversations with inquiry partners. Feedback from participants was sought before the intervention strategy began in order to determine whether the intervention had been effective from the participants' perspective. Then, the intervention strategy was initiated. Faculty buy-in was an essential component of this phase. The intervention was shared with other community colleges.

Last, the intervention was evaluated in Phase III to answer the third research question. Shared dialogue with CTE inquiry faculty partners examined the effects of the intervention on the adult women learners' academics and experience, including the level of ease of the interventions and the level of acceptance and use by the faculty. The campus community was examined for sustainability by obtaining stakeholder feedback. The feedback was documented for future recommendations and shared with other community colleges with similar contexts. Secondary data of student success for the selected courses was explored.

By voicing and addressing these social issues, I hoped that participants gained an improved sense of academic self-efficacy. Moreover, by sharing results, I raised awareness among Pineland faculty and staff, improving the climate for adult women learners.

Conceptual Framework

This qualitative participatory action research was conceptually framed around Acker's theory of gendered organizations and Iloh's model of college-going decisions and trajectories (Acker, 1990; Iloh, 2019). Acker's theory and Iloh's model connect to the historically male and recent shift in focus to a youth-centric model of community colleges. Together, these theories undergird this inquiry's research questions into persistence concerns and frame a discussion about the inequity in experience for adult women learners in community college.

Gendered organization theory explores organizations through the lens of gender and the subordination of women through perceived differences between the sexes as applied to higher education (Acker, 1990). Exploration of gendered organization theory includes the interplay between advantaged and disadvantaged, as organizations are inherently characterized by the traditionally White male lifestyle higher education was classically established for in the United States. For this inquiry, gendered organization theory assimilated the ideal worker role as the masculine traditional aged learner whose primary responsibility was to study and juxtapose it with the feminine adult aged learner whose duties include study, family and home within the higher education context. Gendered organization theory applied to the community college context considered the ideal student one of traditional age and with studious responsibilities as primary; thus, organizations subjugate students with outlier responsibilities. In contrast, adult women learners have fragmented roles that splinter their focus into various shifts: work, family, home, parent, and caregiver, leading to persistence issues. This inquiry examined the experiences

of adult women to determine what they identified as the positive and negative aspects of their community college experience and if they felt the organizational culture was rooted in hegemonic structures.

The Iloh model of college-going decisions and trajectories is a bidirectional ecological model that investigates the college-going processes beyond the linear choice model established for students from privileged backgrounds (Iloh, 2019). There are three components within the model: information, time, and opportunity, and it explores how the three interact to affect the trajectory of college students beyond a conventional single-event model. Learners' obligations, responsibilities, and unique realities are based on their identities, life circumstances, and social position. This inquiry applied Iloh's three components to determine if adult women learners perceived their persistence as an extension of their college-going trajectories by recognizing its non-linear decision structure.

Inquiry Partners

The inquiry partners for this study were from Pineland Community College and the greater community (see Table 3). Along with their guidance, the stakeholders provided data and assistance during the inquiry's various stages that was key to this study's success.

For the implementation to have been effective, it was necessary to gain buy-in from faculty and staff. The Vice President of Academic and Student Affairs, Division Chairs, and various staff members were consulted to achieve this.

Faculty from health care were consulted, as they constituted the predominant program of the population. Additional faculty from the QEP team and other curriculum and CTE provided feedback on the interview questions and collaborated on the intervention's design. In the pilot study, these partners were given a survey of the interview questions to provide feedback. The

Dean of Student Services provided all relevant data regarding the establishment of the baseline during the final assessment phase, including enrollment, success rates, program codes, and students in each program. The exhibition process required input from various inquiry partners: the art instructor and a local photographer. They also functioned to review the images provided by the participants for overarching visual themes. Prior to the initiation of the exhibit process, the selected images and associated narratives were shared with Pineland's President and the Vice President of Academic and Student Affairs for input to determine the institution's position regarding the appropriateness of the images.

The Library Assistant and Coordinator provided essential support. The Library Assistant was a former member of college transfer programs and aided in achieving faculty buy-in. The coordinator provided feedback regarding the study, population, participant recruitment, and transcription process.

Definition of Key Terms

Adult Learner: A learner enrolled in higher education over 25 is usually called non-traditional (Gulley, 2021).

Gateway Courses – Courses that meet these criteria: foundational learning, high risk of failure, and high enrolment (Koch & Rodier, 2016).

Gender - The range of socially constructed roles and behaviors associated with men, women, and diversity across the gender spectrum (Bartz et al., 2020).

Gender Norms – Unwritten, informal guidelines determining appropriate and acceptable behavior in a society or group (Cislaghi & Heise, 2018).

Intimate Partner Violence – Physical, emotional, or sexual abuse (Voth Schrag & Edmond, 2018a).

Table 3

Collaborative Inquiry Partners

Inquiry Partner	Role in Study
Vice President of Academic Affairs & Student Services	Aid in faculty buy-in and development of intervention strategy
Faculty/Staff	Proofread interview questions, verify rigor, refer student participants, aid in exhibition presentation, development of intervention strategy, evaluate effects of intervention
Dean of Student Services	Provide and explain secondary background data for baseline and post-intervention deployment
Art Teacher, Local Photographer, and Museum Curator	Aid in exhibition presentation and review participants' images
Library Assistant and Coordinator	Facilitate faculty buy-in and aid in all Phases of the study.

Non-traditional Student – A student with any one or a combination of the following characteristics: (a) aged 25 years or older, (b) delayed enrollment by one or more years to higher education, (c) preparing for a second career (d) full-time employment with part-time enrollment, (e) financially independent, (f) had dependents other than a spouse, and (g) had an alternative degree to the high-school diploma (Ajayi et al., 2022; Askham, 2008; Casstevens et al., 2012; Chen, 2017).

Photo-Elicitation – A qualitative method of research interviewing that utilizes photographs taken by the subject that enables the researcher to call attention to emotional and cognitive information that is not observed first-hand (Richard & Lahman, 2015).

Sex – Is a spectrum of biological and physiological characteristics that define maleness and femaleness (Bartz et al., 2020).

School Sabotage Tactics – A spouse or life partner's coercive or controlling tactics hinder a survivor's efforts to obtain education credentials. It is a form of Intimate Partner Violence often centered around childcare or emotional abuse (Voth Schrag et al., 2020).

Assumptions

In the present study, I assumed that all participants responded honestly to the assessments and in the interviews. My assumption is the information provided by participants in the interviews was an accurate depiction of the students' journey without undue bias in a desire for acceptance.

Secondly, I assumed all participants volunteered for the study by choice. The identities of all participants remained confidential, and each was informed before the study that they were free to withdraw from the study at any time. Further, it was assumed that the participants took all photographs for the study.

Scope and Delimitations

The scope of an inquiry has to do with the parameters by which the study was bound. The inquiry involved participants enrolled in a curriculum program excluding the college transfer pathway at Pineland, who identified as women and are learners between the ages of 25-44. The participants were enrolled in face-to-face, online, or hybrid courses and have attempted, registered, or completed at least one gateway or general education science course. Further, I tried to recruit participants of various races, ethnic, and socioeconomic groups. To prevent a skewed sample, I attempted to recruit from multiple curriculum pathways and prorate the sample to reflect the program's statistical makeup of adult women learners.

The delimitations of the inquiry were issues caused by the boundaries of the research. The study excluded learners who identified as male, exceeded the age of 45, or were considered high school, dual-enrolled, or traditional students. In addition, faculty, staff, employees, spouses, and their children were excluded from the inquiry. Race, ethnicity, and socioeconomic status were not considered in the scope of the participants. The study ran the risk of a skewed sample because students under 25 can be labeled non-traditional due to various life experiences.

Limitations

Qualitative research created limitations in the research design through weaknesses beyond the researcher's control (Creswell & Creswell, 2018). A limitation of this inquiry was the time to conduct interviews and compile the analysis. The use of a photovoice research design created limitations regarding how to best represent the reflections of the participants via the images selected so that the reader engaged with the image (Latz & Mulvihill, 2017; Nykiforuk et al., 2011). To mitigate this, the images were shared through either a physical or digital exhibit with the campus stakeholders. Further, the number of images shared by participants was limited

to four. There was a risk of participants sharing images that did not reflect the inquiry or brought inappropriate images (Eelderink, 2018). It was the purpose of the photo guide to mitigate this limitation. Additional limitations included the self-reporting nature of the study, as participants may have reported what they believed was the correct answer rather than what they thought or felt (Roessger et al., 2019). The intention was that the images acted to keep the participants from subject bias. The inquiry could not account for participants dropping out of the study or low sample size resulting from the finite number of the inquiry population. The inquiry results may not be generalizable across other community college institutions, as the findings were specific to Pineland; however, other community colleges with struggling adult women learners could have imitated the new behavior patterns at Pineland to promote the populations' success in the fundamental gateway courses.

Significance of Inquiry

The purpose of this qualitative participatory action study was to design, implement, and assess an intervention program to increase the persistence of adult women learners in gateway and general education science courses at Pineland. Studying this population of learners was essential, as they represent the group with the fastest growth rate in higher education. Also, there should have been more literature regarding adult women learners in the community college setting instead of focusing on four-year university or for-profit settings. The literature for adult women learners' college experience often contained barriers absent from the traditional learner experience. Frequently, this type of learner did not reach their full academic potential due to a lack of confidence (Zart, 2019). The inquiry sought to increase the persistence of these learners and provide support that addressed the multiple barriers and roles adult women learners play. After the participants identify their perception of supports and hindrances to persistence in

gateway and general education science courses, these data points were shared with stakeholders to raise the population's belonging.

Advancing Equity and Social Justice

This participatory action inquiry was designed to generate change and mitigate social justice issues present at Pineland, as demonstrated through the lack of persistence of adult women learners in gateway and general science education courses (Gullette, 2017; Simi & Matusitz, 2016). This inquiry furthered social justice by addressing barriers to women's educational attainment. The cohorts of adult women learners at Pineland are low in number; thus, adult women learners frequently are not considered when policymakers and stakeholders develop programs and procedures. Therefore, this population fell through the cracks, which decreased their feeling of belonging and sustained the high withdrawal rate in gateway and general education science courses. Increased awareness on campus regarding the disparities and problems not acknowledged or managed by the institution that adult women face, such as limited academic and technological supports, a mother's area, hours outside regular business hours for campus offices and services, and areas for study during the weekend informed stakeholders, rose empathy, and generated change for adult women learners at Pineland and potentially other community colleges. Some adult women learners experienced challenges prevalent in a sexist society, including life-partner school sabotage tactics, intimate-partner violence, issues with childcare, or limited access to parenting resources (Madden, 2018; Stone & O'Shea, 2019; Voth Schrag et al., 2020). Increases in educational attainment were associated with more significant resources to assist women in leaving abusive domestic situations and provided them with the resources to ensure the safety and success of their children (Voth Schrag & Edmond, 2018a). I

hoped that through my focus of practice, adult women learners felt a greater sense of belonging to the campus community.

Advances in Practice

Through this inquiry, I gave a voice to the adult women learner population to identify institutional or faculty bias through their unique perspective and then gave them the power of the photographic lens to illustrate their college experience to cause policy change at Pineland (Latz & Mulvihill, 2017; Sastre, 2021; Wang & Burris, 1994). Moreover, I sought to decrease the withdrawals of a specific population of students in gateway and general education science courses at Pineland and thereby increased the overall student success rate of the institution compared to other community colleges in North Carolina. Following the COVID-19 Pandemic, the institution needed help to re-establish robust student support, tutoring, success coaching, and communication plans with students.

Further, I hoped this inquiry would inform other community colleges with small populations of adult women learners of the importance of supporting this population by addressing the various unique challenges and issues identified and experienced by this population separate from non-traditional learners that led to a lack of persistence. Also, I hoped the North Carolina Dashboards had adapted how it classified learner groups to prevent this population from being statistically insignificant in the future (North Carolina Community Colleges, 2022).

Summary

The inquiry was grounded in gendered organizational theory and the model of college-going decisions and trajectories. This qualitative participatory action research study aimed to increase student persistence to completion in gateway and general science courses by the

implementation of an intervention with adult women learners focusing on community and institutional resources and supports.

This chapter framed the focus of practice for adult women learners at Pineland. It provided a way to present their perspective of their college experience and any occurrences of bias and out-grouping to create change in a local context. The significance of this study was to fill the literature gap regarding the need for a study of the implementation and use of supports and resources to bolster the persistence of adult women learners. The chapter introduced the research questions, identified inquiry partners, and defined key terms. Further, I discussed how my study addresses social justice and equity concerns. The chapter concluded with my hope that this study generated change by supporting adult women learners' persistence.

The second chapter provides a literature review beginning with a more detailed theoretical framework description. The chapter continued with an in-depth evaluation of community colleges, supports, and barriers to persistence that adult women learners face. I analyzed the aspects that make adult women learners unique from other community college populations through their roles, such as wife, student-mother, employee, caregiver, and student. The second chapter focused on the impact of sociocultural constructs of womanhood and implicit gender bias within a gendered learning culture. Chapter 3 provides an in-depth discussion of the methodology used in this study to address the questions posed at the beginning of this chapter and explain the study cohort.

CHAPTER 2: REVIEW OF THE LITERATURE

This chapter reviews the literature on adult women learners regarding the lack of academic persistence and the correlation of these experiences as a barrier to persistence. The research is framed on Acker's gendered organizations and Iloh's model of college-going decisions and trajectories (Acker, 1990; Iloh, 2019). The theory and model connect to persistence concerns and frame a discussion about the inequity in experience for adult women learners in community college.

At Pineland Community College, 22% of curriculum learners are adult learners. Adult women learners between 25-44 experience a significant lack of persistence in the gateway and general education courses, evidenced by high numbers of withdrawals (see Table 1). Adult women learners' deficiencies in success have a profound negative impact on persistence to completion. While the college offers resources to aid students, many adult women learners are not admitted into desired programs because failing a gateway or general science course prevents progression. This gap is essential, as 53% of adult learners at Pineland Community College in AY2020-21 and 57% in AY2021-22 earned a non-successful grade (see Figures 4 and 5). Research in higher education identifies adult learners as a rapidly growing population. Within this demographic, the fastest-growing subsection is adult women learners; however, they experience minor success in required courses (Margarit & Kennedy, 2019; Rabourn et al., 2018). The purpose of this qualitative participatory action study is to design, implement, and assess an intervention program to increase the persistence of adult women learners in gateway and general education science courses at Pineland.

The chapter begins with a discussion of the conceptual framework and is followed by an exploration of adult women learners in the community college context. The direction will shift to

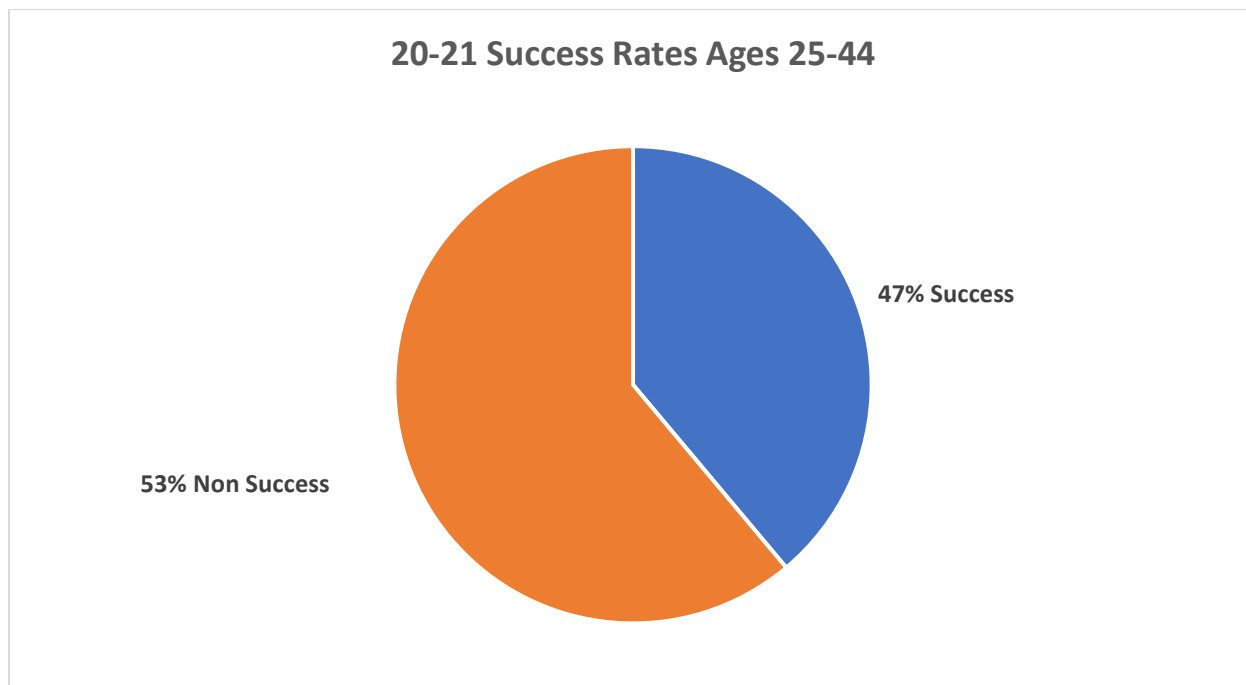


Figure 4. Success rates of adult learners 2020-2021.

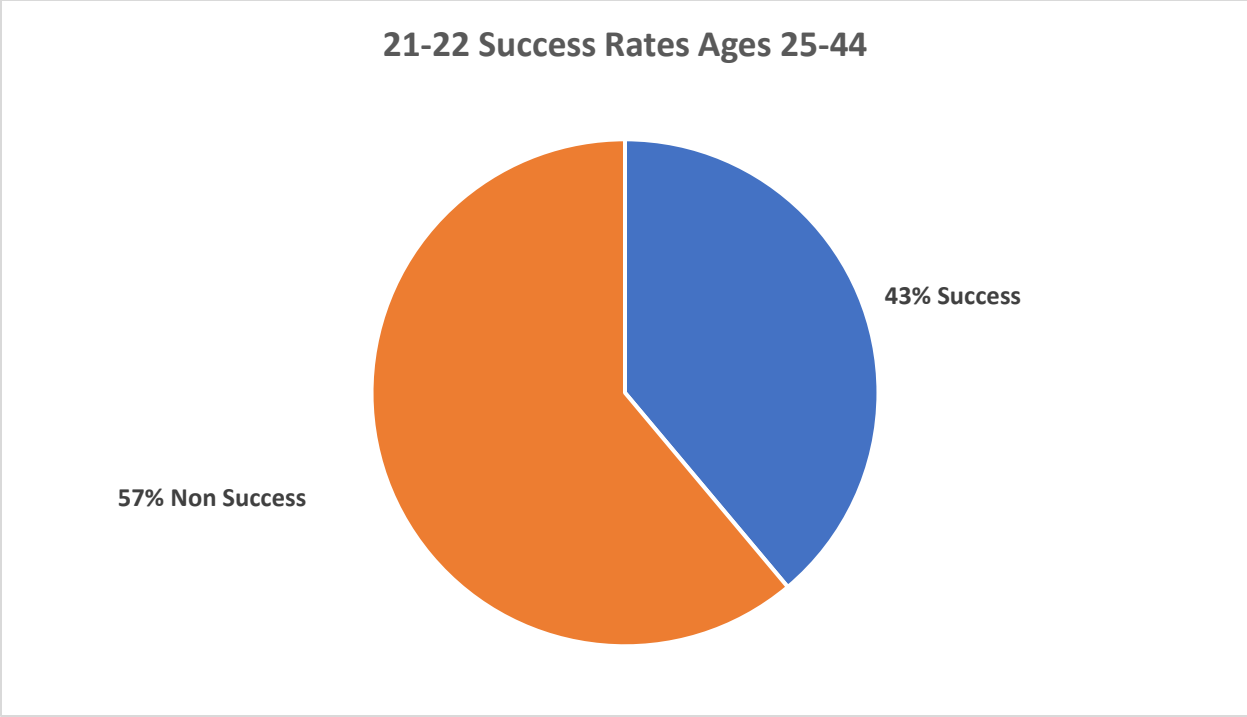


Figure 5. Success rates of adult learners 2021-2022.

focus on the sociocultural constructs of womanhood, gendered learning culture, student mothers, and life partners' impact on success and persistence. It is important to understand the supports and barriers to persistence adult women learners experience, including motivations and initiatives to prompt reentry. See Figure 6 for an outline of the breakdown of Chapter 2.

Conceptual Framework

The conceptual framework designed to guide this inquiry utilizes Acker's theory of gendered organizations applied to Iloh's model of college-going decisions and trajectories to explore how adult women community college learners' perceptions impact persistence in gateway and general science education courses (Acker, 1990; Iloh, 2019). The theory of gendered organizations examines how organizations are not gender-neutral (Acker, 1990). The model of college-going decisions and trajectories is a bidirectional ecological model that investigates the intricacies and complexities that comprise the college-going processes beyond the linear choice model (Iloh, 2019).

Acker's theory explores the perceived differences between genders to indicate that organizations are innately gendered to reveal power relationships through a traditionally male hierarchy (1990). Within the theory are the following tenets: (a) division of labor, (b) cultural symbols and images that reinforce divisions, (c) workplace interactions, (d) individual identity, and (e) organization logic. As applied to community college contexts, Acker's theory utilizes the traditionally aged male as the ideal worker norm that places the masculine responsibility of work first. Thus, adult learners, specifically adult women learners, are stigmatized within a gendered organization due to the feminine responsibilities of family, home, and employment that may compete with studies.

Adult Women Learners in the Community College Context

- Community College Student Characteristics
- Adult Women Learner Characteristics

Sociocultural Constructs of Womanhood in Higher Education

- Social Constructs of Womanhood and Student Identity Conflict
- Inequities' Impact on Adult Women Learners' Persistence
- Student Mothers
- Impact of Life-Partners

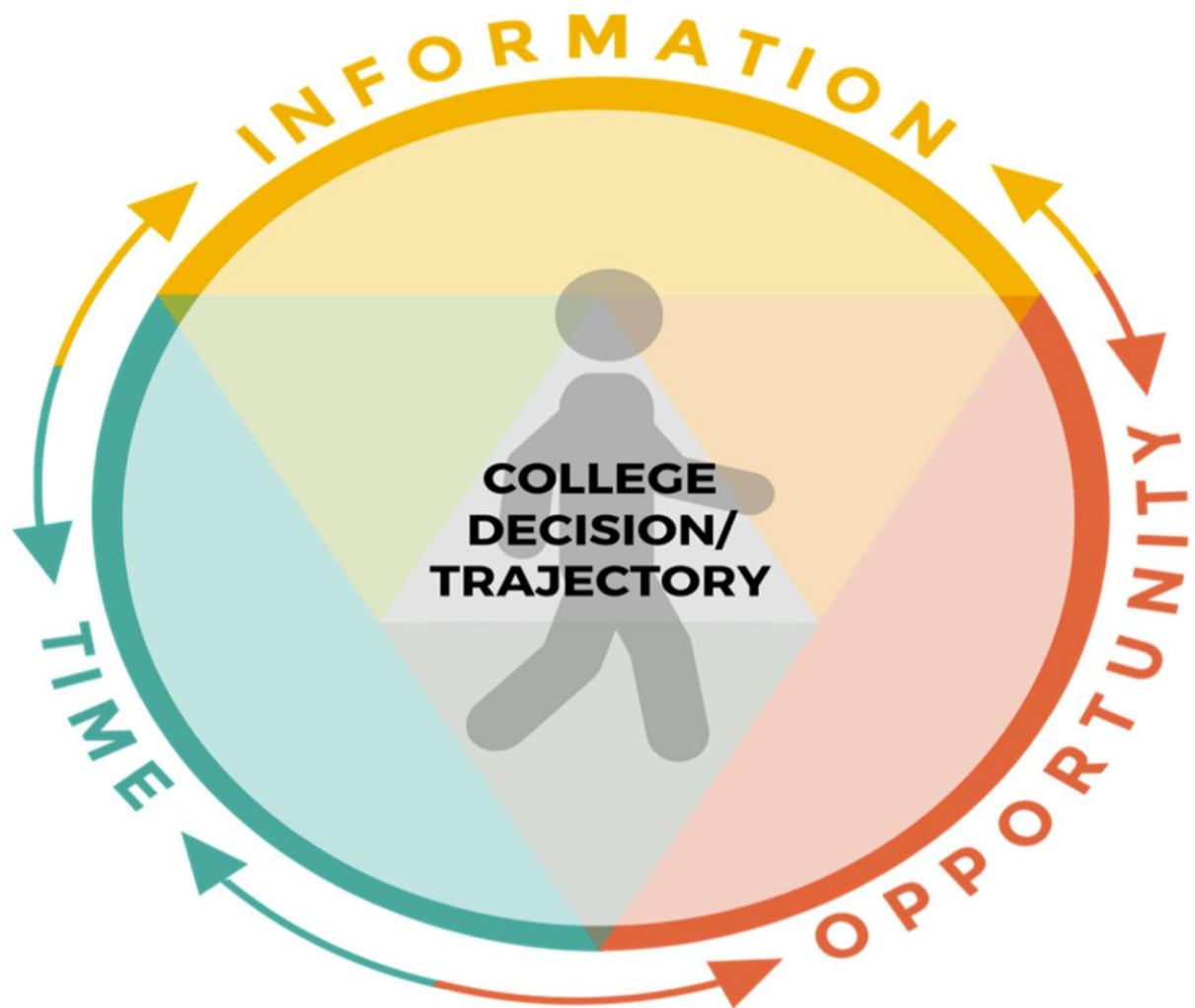
Supports and Barriers to Adult Women Learners' Persistence

- Supports
 - Motivation to Complete
 - NC's Initiatives to Prompt Reentry
- Institutional Barriers
 - Structural Bias
 - Enrollment & Registration
 - Finances
- Academic Barriers
 - Remedial Coursework
 - Balancing Employment
 - Distance Learning

Figure 6. Outline of chapter 2.

Historically, Acker's theory, when applied to higher education, typically frames research around women faculty, most recently the lack of women scholars' articles mid-pandemic resulting from concerns of motherhood and the social constructs of womanhood as applied to women faculty (Acker, 1990; Anderson et al., 2020; Górska et al., 2021; Madden, 2018; Malisch et al., 2020). Gendered organization theory undergirds the experience of adult women learners who are beyond the ideal student model regarding age and gender (Acker, 1990; Madden, 2018). This study would contribute to the research on adult women's education within the context of a gendered organization and investigate adult women's perceptions to comprehend their needs to impact their persistence positively. For adult women learners, research purports that family pressures, childcare difficulties, financial aid, medical needs, and work-school balance are significant concerns to persistence (Lynch, 2008; Madden, 2018). This inquiry examined the experiences of adult women to determine what they identify as the positive and negative aspects of their community college experience and if they feel the organizational culture is rooted in hegemonic structures.

Iloh's model of college-going decisions and trajectories consists of three separate but co-dependent functions that co-exist in a non-linear bidirectional format (see Figure 7; Iloh, 2019). The functions are information, opportunity, and time, which expand the college-going pathway to permit flexibility, stop-outs, and returns due to circumstances and life events that may prevent a linear college pathway. The model recognizes that some students have educational trauma and thus have a fragmented trajectory due to mobility, life obligations, age, socioeconomic status, financial obligations, or social position, thereby impacting completion. For some students, college does not meet the one-size-fits-all model, as that model does not account for gender,



Note. Iloh (2019).

Figure 7. Iloh's model of college-going decisions and trajectories.

language barriers, location, or life stage. Finally, Iloh's model addresses the impact of prior life decisions and experiences on completion.

The configuration of the community college system lends itself to serving disadvantaged student groups such as first-generation students, those from lower socioeconomic levels, and students classified as Deferred Action for Childhood Arrivals (DACA), undocumented, and mixed-status (Nichols & Barger, 2021). These populations and adult women learners face multiple barriers to completion, as described in Iloh's model (2019). Information operates within the model through several significant indicators, namely access to, quality of, and the source of the information. The ease of delivery of important information may be more important than the message itself. Inclusive marketing and collegiate information, the simplicity of website navigation, and the institution's ability to disseminate knowledge and provide data to make holistic college decisions are components of information. A subcomponent of the information function is information deserts, which represent a concern in disseminating information (Iloh, 2018; Iloh & Tierney, 2013). Information deserts include credits not transferring between community colleges, being required to retake courses, being sent to multiple areas on campus to gain information or being transferred between offices, poor website navigation, and needing guidance on where to go to receive assistance.

The next component is time, which encompasses a person's life history, age, educational history, trauma, and past life decisions (Iloh, 2019). In addition, the tenet of time incorporates whether educational opportunities have increased or decreased, the cycle of stopping out and returning, the number of previous attempts made to complete, and the length of enrollment. For adult women learners, time is impacted by the cycle of returns, thereby leading to frustration and heartbreak due to previous negative educational experiences. For a community college student,

time exists in the institutional processes of admission, registration, scheduling, and availability of needed courses.

For the adult women learner, the most significant barrier presented in Iloh's model is the function of opportunity that envelopes a learners' identity defined by race, gender, age, ability, perceived ability, and how these identities intersect (Iloh, 2019). The dimension of opportunity entails the beliefs and realities of what one perceives as possible, including the ability to gain acceptance to post-secondary education and financial aid. Factors of opportunity include the perception of the successful use of technology, location of an institution and the beliefs of how one will manage employment or family with education, as well as how each intersects as either a possibility or a challenge (Iloh, 2018). Institutional inequalities may be directly or indirectly transmitted to students of specific identities and may affect a learners' self-efficacy and opportunity to be successful. An individual's perception of identity may limit opportunities by believing what is possible based on past experiences and messaging. As a result, an individual may perceive higher education as unfeasible if the setting is viewed as elitist, ageist, or sexist.

This inquiry will combine Acker's theory of gendered organizations and Iloh's model of college-going decisions to determine the youth-centric culture of community colleges and how this focus affects adult women learner persistence (Acker, 1990; Chen, 2017; Iloh, 2019). The Iloh college-going decisions and trajectory model postulates that adult women learners' experiences are outside the gendered traditional male college experience due to life experiences, including age and gender. The current focus of community colleges on dual-enrolled and traditional learners has also shifted the lens away from adult women learners. This inquiry will add to the research concerning college-going trajectories by identifying which component of Iloh's model significantly impacts adult women learners in a community college in the rural

South with a youth-centric, gendered focus. Additionally, this inquiry will address whether adult women learners perceive an increase or decrease in their opportunities and the adequacy of the support structures provided by Pineland.

Adult Women Learners in the Community College Context

The community college mission and environment appeal to a diverse field of learners, including adult learners. Adult learners are an expanding portion of the higher education system, and within the adult learner classification are several subgroups defined by unique criteria. A discussion of adult women learners in the community college context follows, including the reasons adult women learners sought education and their college-choice process.

Community College Student Characteristics

The community college system focuses on improving access for all learners in the local community and workforce (Freeman et al., 2020). Within North Carolina, 700,00 students live within a 30-minute drive of a community college or satellite campus (MCNC, 2023). The community college's mission is to educate learners to transfer to four-year universities, educate life-long learners, and provide primary adult education and training (Bers & Schuetz, 2014; Ives, 2019). For the adult learner, the selection of community college as opposed to other institutions is based on distance, the open-door policy, and the ability of the student to incorporate school around other duties, including family, caregiving, and employment, rather than cost (Jepsen & Montgomery, 2009; Rabourn et al., 2018; Yang & Venezia, 2020).

The diverse field of students the North Carolina Community College System (NCCCS) serves includes traditional learners, adult learners, high school students, first-generation, and low-income persons (Gullette, 2017; Ives, 2019; Margarit & Kennedy, 2019). In North Carolina, 1.3 million adults between the ages of 25-44 do not have a college degree or credential; however,

380,000 began college and earned credits without persisting to a degree and are classified as “Some College, No Degree” (myFutureNC, 2021; Nichols & Barger, 2021). The enrollment of adult learners is increasing rapidly within the United States, and in the NCCCS, 39% of all enrolled certificate or degree-seeking students are adults 25 and older (Nichols & Barger, 2021).

Due to open-door admission policies, community colleges play a fundamental role in providing access to higher education for students from diverse backgrounds. Often, many students who attend community colleges are disadvantaged socially and academically or are low-income (Iloh, 2019; Margarit & Kennedy, 2019). A wide variety of students admitted include adult learners, mostly women (Nichols & Barger, 2021). Many first-year community college students need at least one remedial course; therefore, these students may take longer to complete. As a result, only 52% of students return for the second year (Margarit & Kennedy, 2019). Community colleges provide low tuition, apprenticeships, and college partnerships within the local employer market to attract learners (Bers & Schuetz, 2014). Tuition costs can be important for students with dependents, those from low-income families, and those who struggle with financial pressures, including obtaining student loans. In addition, comprehensive course offerings and open admission policies are cornerstones of the community college system.

Adult Women Learner Characteristics

Historically, the criteria for classifying non-traditional or adult learners focused on the student's age as 25 or older; however, in recent years, the criteria expanded to include other subgroups (Askham, 2008; Gulley, 2021; Simi & Matusitz, 2016). These subgroups are defined by classifications dependent on differentiated family status, enrollment status, employment status, or life experiences (Simi & Matusitz, 2016). Differentiated family status for adult learners includes marriage and learners with dependents other than a spouse, including student-parents

and single parents (Ajayi et al., 2022; Simi & Matusitz, 2016). Further subsections of adult learners reflect part-time enrollment because of family relationships or full-time employment, including some learners who are financially independent of their parents (Askham, 2008; Casstevens et al., 2012). The final criteria reflect individuals who did not receive a standard high school diploma or those who postpone college enrollment post-high school (Babb et al., 2022).

In a trend predicted to continue through 2028 in the United States, the enrollment of adult learners who identify as women outnumber learners who identify as men (NCES, 2021). The rationale that prompts adult women learners to achieve education stems from increased economic potential, independence, better or new employment, or the development of a retirement nest egg (Chen, 2017; Fairchild, 2017; Gullette, 2017; Renner & Skursha, 2022; Steinhauer & Lovell, 2021; Stone & O'Shea, 2019). For adult women learners, 32% report they sought higher education for career advancement or alignment with developing a new career pathway (Crounse et al., 2018; Fairchild, 2017; Mallman & Lee, 2017; Rabourn et al., 2018; Zart, 2019). For some, education follows a layoff from a job (Fairchild, 2017; Lanford, 2021). Economics remains a strong motivator for adult women, but some are inspired by a desire to grow, and 10% report seeking education to act as a positive role model for children (Lanford, 2021). Adult women learners attribute their desire to attend as something they always wanted to do or because they watched their children graduate college (Renner & Skursha, 2022). This population states that higher education is a long-deferred dream of personal and intellectual fulfillment (Fairchild, 2017). Women often struggle to find the right time to pursue or continue their educational goals and frequently wait because of limited finances, employment, or caregiver work (Fairchild, 2017; Smith, 2017).

Adult women learners frequently fall into two categories: those attending higher education for the first time after a gap in attendance since high school and those returning to college with a gap in their educational history (Fairchild, 2017). Adult woman learners who are first-generation students often report being discouraged by friends and family members who do not see the purpose of higher education or perceive it as outside the status quo (Sanga & Vaccaro, 2022). This discouragement may lead adult women learners to stop out, leading to a cycle of withdrawal and re-enrollment. The linear college-choice model of selection, attendance, and completion may not occur for adult women learners attributable to the cycle of withdrawal and enrollment that many experience (Iloh, 2019). Also, the process is affected by life cycle changes attributable to resource access and the myriad of reasons they provide for seeking education.

The college-choice process is often based on the available vocational track of the institution and future employment availability within the community, leading adult women to pursue degrees in nursing, agriculture, or industry positions (Yang & Venezia, 2020). The choice of a specific, local community college is affected by several considerations attributable to the short travel distance to home, childcare, or work (Jepsen & Montgomery, 2009; Madden, 2018; Margarit & Kennedy, 2019). Travel time and part-time enrollment are practical components impacting adult women learners' motivation when other demands on their time conflict with study time, including parenting, employment, and community roles (Zart, 2019). Adult women learners' choice of community college is also connected to the ability to study part-time (Ives, 2019; Zart, 2019). Financial costs are a limitation of full-time enrollment (Rabourn et al., 2018). Part-time enrollment provides flexibility to work towards balancing education with employment,

family, and other roles to achieve educational fulfillment (Freeman et al., 2020; Ives, 2019; Margarit & Kennedy, 2019; Stone & O'Shea, 2019; Zart, 2019).

When group-labeling learners as non-traditional, universities may perceive barriers for these students that may not accurately reflect adult learners' perception of their experience, namely what supports learner persistence. (Gulley, 2021). A key component of adult learner persistence is acknowledging the differences between the various subgroups within the adult learner classification and how to address their characteristics best (Renner & Skursha, 2022). This insight could have provided awareness regarding how community colleges could have developed strategies to serve the diverse nature of adult women learners to increase persistence.

Sociocultural Constructs of Womanhood in Higher Education

To achieve dreams of advancement and independence, adult women learners enroll in higher education; however, these learners often have unique personal concerns that separate them from other learners (Mallman & Lee, 2017; Voth Schrag & Edmond, 2018a). Adult women learners deal with the social constructs of womanhood and implicit gender bias (Carnes et al., 2015; Simi & Matusitz, 2016). This section of the literature review will analyze adult women learners as women, student-mothers and the impact of their relationships.

Social Constructs of Womanhood and Student Identity Conflict

The mother archetype is the prevailing image for women in America, which influences women's roles, childrearing responsibilities, and caretaking expectations (Carnes et al., 2015; Chen, 2017; Fairchild, 2017; Lynch, 2008; Madden, 2018; Sagna & Vaccaro, 2022; Stone & O'Shea, 2019; Stearney, 1994; Zart, 2019). Further, having the desire to be a mother is considered the epitome of womanhood (Lynch, 2008; Stearney, 1994). The motherhood image portrays women as naturally possessing a sensitivity to the needs of others with a predilection for

empathy. The social dynamic of motherhood depicts selflessness, nurturing, and family protection as women's primary caregiving responsibilities (Carnes et al., 2015; Lynch, 2008; Madden, 2018; Stearney, 1994).

Intensive mothering presents a gendered model evoking the definition of competent motherhood as the primary fulfillment of a woman's identity, with intense pressure to be an ideal parent (Lankes, 2022; Stone & O'Shea, 2019). The model equates "good mothers" as those who follow the norms defined by society to devote time, finances, and energy to rearing their children as the exclusive caretakers (Cislaghi & Heise, 2018; Hayes, 1996; Lynch, 2008). Further, it depicts men as less capable nurturers than women (Lynch, 2008; Stearney, 1994). The child's needs should be placed above the woman's needs throughout all stages of development (Lynch, 2008). Thus, intensive mothering centers on women completing childcare and household duties before attempting to achieve personal, educational, or employment goals (Lankes, 2022; Lynch, 2008). Finally, if a woman is employed or pursues education, she is still held to the same level of responsibility for household duties and childcare, as other providers are considered less capable than the mother.

During the COVID-19 pandemic, the intensive mothering model was emphasized, as both parents were home to assist with household, childcare, and homeschooling tasks (Collins et al., 2021). The additional stress of the pandemic was generally greater for women, as evidenced by the 19% decrease in academic papers by women authors during 2020 compared to 2019 (Andersen et al., 2020; Górska et al., 2021; Malisch et al., 2020). For families with young children, women were four times more likely to reduce work hours to tend to household contributions than men (Collins et al., 2021; Malisch et al., 2020). Further, in households with two teleworking parents, the caretaking and additional household responsibilities fell primarily to

the mothers, even with the increased availability of fathers (Górska et al., 2021). Men were exposed to the childcare and housework contributions needed to sustain the home during COVID-19; however, men were less likely to reduce work hours, raising concerns regarding the gender gap (Collins et al., 2021; Górska et al., 2021). The burden of COVID-19-specific household duties, including homeschooling, fell primarily on women (Andersen et al., 2020; Collins et al., 2021). Aiding families with anxiety and uncertainty about the future also fell to women (Collins et al., 2021). For women experiencing intersecting classifications of oppression, including age, ethnicity, race, socioeconomic status, and sexual orientation, the pressure is greater (Andersen et al., 2020; Collins et al., 2021; Malisch et al., 2020).

When adult women elect to attend higher education, they may experience personal conflict with the expectations defined by society (Carnes et al., 2015; Lynch, 2008). The woman may subconsciously experience conflict because she feels she is detracting from the primary role of nurturer (Askham, 2008; Lynch, 2008; Madden, 2018; Mallman & Lee, 2017; Smith, 2017; Stone & O'Shea, 2019). Often, adult women learners place the needs of others over coursework as they assume the new identity role of student in addition to previously held life and employment identities (Askham, 2008; Smith, 2017). The roles adult women learners hold in life include relationship roles as mothers, spouses, and caretakers of parents (Madden, 2018; Sagna & Vaccaro, 2022; Zart, 2019). Adult women learners also hold community member roles such as employees, small business owners and mentors, athletic coaches, church members, or volunteers (Ajayi et al., 2022; Sagna & Vaccaro, 2022; Smith, 2017). Frequently, adult women learners identify with at least three life roles in addition to the student identity (Sagna & Vaccaro, 2022; Zart, 2019).

The demands of academics and the attempts to juggle the new student identity with other identities can lead to decreased confidence and self-efficacy as their time and energy are shifted away from primary roles (Chen, 2017; James, 2022; Stone & O'Shea, 2019; Zart, 2019). Often, adult women learners state that because they put family, employment, and other roles before academics, they settle for lower grades even if they believe in their ability to perform well academically (Chen, 2017; James, 2022; Stone & O'Shea, 2019; Zart, 2019). These learners may struggle to find role balance and withdrawal with plans to restart later, which limits their college trajectory (Iloh, 2019; Stone & O'Shea, 2019). Academic complications may prevent these learners from asking for assistance with course material without tailored faculty-student rapport and mentoring (James, 2022). In addition, many adult women learners struggle to adapt to the new dependent role of students as it conflicts with their current independent self-concept. The status change to untutored students in classes with younger students is occasionally difficult to reconcile (Askham, 2008; Mallman & Lee, 2017; Smith, 2017; Zart, 2019). Given the myriad of identity roles and the struggle to incorporate the student identity for adult women learners, investigation is warranted regarding whether coaching would supplement persistence.

Inequities' Impact on Adult Women Learners' Persistence

University policies and services are historically gendered to focus on the needs of traditional male learners (Acker, 1990; Chen, 2017; Fairchild, 2017; Madden, 2018). Comparable to racism and sexism, ageism or age-typing is a type of othering that results from an uncalled-for reaction to adult learners' age (Simi & Matusitz, 2016). In this setting, adult learners may see higher education as a youth-centric institution and report experiencing ageism (Chen, 2017). The youth-centric focus of some institutions can cause adult women learners to experience feelings of isolation, ostracization, and imposter syndrome (Chen, 2017; Illoh, 2019).

For adult women learners in four-year universities, there is often an intersection linking ageism and ableism, meaning age discrimination and doubts in ability, by faculty and other learners (Fairchild, 2017; Gullette, 2017; Iloh, 2019; James, 2022; Mallman & Lee, 2017; Simi & Matusitz, 2016).

Adult women learners experience ageism through patronizing behavior as faculty expect adult women learners to understand components of the material already and to be the ideal student due to age and life experience (Fairchild, 2017; James, 2022; Mallman & Lee, 2016; Stone & O'Shea, 2019). Adult women learners experiencing ageism by faculty through age-typing causes othering by marginalizing adult learners, and 16% of respondents in one study reported faculty as a significant barrier (Sutton, 2019). Further, 36% of adult learners in the study stated that faculty are not concerned about their success, which negatively impacted performance and led to a loss of self-efficacy (Fairchild, 2017; Gulley, 2021; Mallman & Lee, 2017; Simi & Matusitz, 2016; Sutton, 2019; Zart, 2019). Low grade point averages can lead to confidence issues as adult women learners struggle to catch up to the traditional students who may not have a gap in their educational history (Chen, 2017; James, 2022; Stone & O'Shea, 2019). Attrition is more likely to occur for adult women learners in the first year of enrollment because of difficulties with time management, difficulties adjusting to the academic rigor, and only taking courses needed to obtain a specific skill set rather than complete a degree (Carreira & Lopes, 2021; Chen, 2017; Freeman et al., 2020, MacDonald, 2018).

Other tensions are caused by ableism when these adult women learners feel invisible and remain silent as they feel they are perceived to lack intellect (Chen, 2017; Fairchild, 2017; Mallman & Lee, 2017). Dependent on the situation, adult women learners may become victims of hostility and discrimination from other students resulting from answering too many questions.

Adult women learners express that they are perceived as obnoxious or annoying (Mallman & Lee, 2017). Moreover, this population experiences doubts about their ability when they feel they ask faculty too many questions. The perception adult women learners report most often is that traditional students see them as obnoxious and annoying. The impact of inequalities can lead to a crisis in confidence (Chen, 2017; James, 2022; Renner & Skursha, 2022; Stone & O'Shea, 2019).

Student Mothers

Role conflicts between the identities of the student and mother result from the dominant societal norms in the United States (Lynch, 2008; Madden, 2018). Student mothers face a dichotomy between roles and may switch from one to the other depending on the setting. Student mothers often elect to be viewed exclusively as students, which is known as maternal invisibility (Lynch, 2008). Other times, the mother may hide her pursuit of higher education, known as academic invisibility. Reasons student mothers hide their academic role include the desire to fulfill the mother archetype expectations by participating in school activities, providing family meals, and participating in bath time and bedtime rituals (Hayes, 1996; Lynch, 2008). Meeting children when they arrive home from school and assisting with homework are part of the primary caregiver tasks assigned to women by the intensive mothering model (Stearney, 1994). It is challenging for women to be maternally and academically visible simultaneously as the roles conflict because mothers are responsible for childcare and domestic tasks.

Adult student mothers' personal needs function as unique stressors as they attempt to multitask coursework around family priorities and responsibilities, such as children and aging parents (Lynch, 2008; Sagna & Vaccaro, 2022; Stone & O'Shea, 2019). Additional pressure occurs if the student mother must decide between family and study time (Sagna & Vaccaro, 2022). For example, additional stress results if an adult woman learner's academic role causes

her to miss notable events or quality family time. To ease the stress of choosing, many student mothers complete assignments when their children are at school, while they sleep at naptime, or late at night (Sagna & Vaccaro, 2022; Smith, 2017). Further, the friction some adult women learners experience internally, combined with family pressure, may lead to feelings of selfishness or guilt (Stone & O'Shea, 2019).

Student mothers at many community colleges note the absence of services and programming designed specifically for them (Ajayi et al., 2022; Mallman & Lee, 2017). Also, there is a lack of access to childcare on campus or spaces designed for children (Ajayi et al., 2022; Chen, 2017; Madden, 2018; Mallman & Lee, 2017). Additional needs were noted, such as connection to community programming and services, evening programs, and access to safe spaces. Last, student mothers report desiring lactation rooms or designated areas for this service. Literature suggests that student mothers may have additional personal stressors and need specific institutional resources; however, few studies thus far examine resources community colleges offer to support student mothers to promote persistence.

Impact of Life-Partners

Support from a committed life partner or spouse for adult women learners can be a key motivational factor for the on-time completion of adult women learners (Smith, 2017; Steinhauer & Lovell, 2021). When spouses support wives with the household responsibilities typically assigned to women through cultural gender norms, including cooking, cleaning, and childrearing duties, adult women learners state they have additional time to study and experience less stress compared to those with non-supportive partners (Carnes et al., 2015; Cislighi & Heise, 2018; Smith, 2017; Voth Schrag et al., 2020; Zart, 2019). Some adult women learners state that after finishing their degree, they feel a sense of achievement, confidence, perseverance, and tenacity

(Fairchild, 2017). Literature suggests that support from a committed life partner or spouse is a dedicated support to adult women learners; however, no studies explore how institutional engagement with spouses could further increase persistence.

Adult women learners in a community college with non-supportive life partners report they experience various forms of control classified as school sabotage tactics (Voth Schrag et al., 2020; Voth Schrag & Edmond, 2018a). These tactics entail using threats, hostility, manipulation, destruction of assignments, limiting access to and time for school, and preventing access to needed resources (Stone & O'Shea, 2019; Voth Schrag et al., 2020). Similarly, spouses or life partners may become stressed, jealous of women's academic growth, neglected, or intimidated (Stone & O'Shea, 2019). Some adult women learners report that during the school term, their partner or spouse deliberately picks fights or complains that the women are tired and run-down, while during holidays and summer breaks, the emotional atmosphere of the home returns to normal (Voth Schrag & Edmond, 2018a).

Purposively disrupting childcare remains one of the most prevalent tactics of school sabotage in which partners deliberately choose to increase the difficulty of balancing schoolwork with childrearing responsibilities (Voth Schrag et al., 2020). The specific tactics of disruptive childcare Voth Schrag et al. (2020) report include forcing the student-mother to take semesters off to meet the needs of childcare, repeatedly failing to arrive at the appointed time to take their turn or being an absent parent. The results of school sabotage for adult women learner includes somatic symptoms, decreased self-esteem and self-confidence, a negative effect on memory, and increased feelings of depression, anxiety, and shame. Institutional advocacy, safety plans, and access to community resources are important to assist adult women learners with intervention, prevention, and childcare (Voth Schrag et al., 2020; Voth Schrag & Edmond, 2018a). The

literature discusses the various forms and impacts of school sabotage for adult women learners; however, additional study is critical regarding the access to and use of community resources by adult women learners as these resources may assist these learners to stay enrolled without stopping out and to maintain focus on coursework.

Consistently, adult women learners state time and life constraints as the most challenging obstacle to schoolwork, which hinders persistence to completion (Margarit & Kennedy, 2019; Steinhauer & Lovell, 2021). Another obstacle often not explored in the community college setting is intimate partner violence, defined in the literature as physical violence, emotional abuse, or sexual abuse (Voth Schrag & Edmond, 2018a). Seven out of ten adult women learners are in relationships, increasing the likelihood of abuse compared to traditional learners, with adult women learners 40% more likely to suffer emotional abuse and 41% more likely to suffer physical violence than traditional learners (Min, 2019). Conversely, Min found adult women learners are 22% less likely to suffer sexual abuse than traditional peers, as sexual abuse occurs most often in the four-year Greek system, residence halls, and party situations. Adult women learners in community colleges report intimate partner violence experiences at a significantly higher rate than national samples, as social power balances shift in some relationships through the women's advancement in education, which increases the risk of violence (Stone & O'Shea, 2019; Voth Schrag & Edmond, 2018a).

The outcomes of intimate partner violence for adult women learners include increases in post-traumatic stress disorder, depression, disengagement, fear for safety, and negative academic impacts as students take semesters off, lose focus, experience diminished achievement, and shift time and energy from schoolwork to their partners (Voth Schrag et al., 2020; Voth Schrag & Edmond, 2018a; Wood et al., 2020). The research identifies intimate partner violence as an

obstacle for adult women learners in community colleges and the subsequent impacts on mental health and academics; however, a study is essential to determine what types of community programs and social support resources are available and promoted to adult women learners experiencing intimate partner violence, and how these types of engagement may impact persistence.

Supports and Barriers to Adult Women Learners' Persistence

This section of the literature review analyzes supports and barriers in the community college system at the institutional and academic level for adult women learners, including initiatives in North Carolina to foster learner reentry. Barriers to success attributable to institutional and educational obstacles are analyzed. Last, the issues surrounding the implications of the sociocultural constructs of womanhood are discussed.

Supports

Many of the supports available to adult women learners are from outside the community college environment. Some of the supports include North Carolina initiatives and internal motivation

Motivation to Complete

There are a variety of supports to motivate adult women learners in higher education to persist. Often, the value of degree completion is high for adult women learners in community colleges, as 60.3% reported they desired a straightforward, structured program of courses with the end goal of on-time graduation, as compared to 7.3% desiring to explore classes (Crounse et al., 2018; Freeman et al., 2020; Rabourn et al., 2018; Zart, 2019). The motivation to complete keeps adult women learners academically engaged. Likewise, this population is often internally motivated to inspire others by acting as positive role models for family members, including

spouses, parents, and children (Sagna & Vaccaro, 2022; Steinhauer & Lovell, 2021; Zart, 2019). Children's affirmations bolster some adult women learners' confidence to persist to completion (Sanga & Vaccaro, 2022). End-goal motivations to earn a degree or credential vary and encompass advancement in current careers, gaining a new career, or proving to others that they can exceed societal expectations and earn respect (Zart, 2019). When adult women feel encouragement from families, they report the likelihood of persisting increasing by 61% (Bergman et al., 2014).

Aside from families, informal networks between adult women learners develop as these learners gravitate toward collaboration with peers, including faculty and staff with similar characteristics and life experiences (Bertolini, 2022; Mallman & Lee, 2017; Sagna & Vaccaro, 2022). Many adult learners in community college reported the experience as good; 95% reported they would recommend their college to a friend, and 96% reported that their education was worth the cost if not more (Sutton, 2019). Although the literature shows internal motivation and family support are critical factors, there is limited research that evaluates the methods community colleges use to support adult women learners and involve their families through programming to determine if family involvement in the education process may aid academic achievement.

North Carolina's Initiatives to Prompt Reentry

Adult learners represent an expanding percentage of the current student population, and more are reentering higher education (NCES, 2021). Adults remain more likely to choose occupation certificate programs or career and technical education (CTE) offered through community colleges instead of pursuing college transfer programs (Margarit & Kennedy, 2019; Rabourn et al., 2018; Renner & Skursha, 2022). Recently, many states have invested in programming to target adult learners to reenter and complete a degree or credential to achieve an

educated workforce for the future (Nichols & Barger, 2021). Seven states have enacted an innovative Adult Promise initiative to prompt adult learners to return to higher education after a previous stop-out.

The foundation of the Adult Promise program is the premise that adult learners need an efficient and straightforward manner to acquire information on how to access and complete higher education (Nichols & Barger, 2021). Within the program are three subsections to scaffold adult learners: (a) Finish First, introduced at select institutions within the state system; (b) the creation of a web portal to provide student-specific information to the adult learner population; and (c) higher education workforce professional development. Finish First's structure is designed specifically for adult learners and includes outreach to adults a few credits shy of a degree or credential, which corresponds with the 41% of adults living in rural counties with a degree or credential beyond a high school diploma (myFutureNC, 2021; N.C. Rural Center, 2023). The initiative allows the awarding any credential that may have been earned through previous coursework by searching for pathways to completion at community colleges.

Post-COVID, the population in American rural counties increased, partially stemming from relocations during the pandemic (N.C. Rural Center, 2023). In North Carolina's rural counties, there is a greater need for higher education attainment goal achievement, as 41% of mid-career adults ages 35-44 earn a family-sustaining wage or enough to afford necessary expenses without using financial assistance (myFutureNC, 2021). Employment wage gaps are highest for rural women in N.C., as 59% of men are likely to earn a family-sustaining wage, compared to 55% of women, which may prompt the desire for adult women to seek post-secondary education.

The push for encouraging adult women learners to complete or reenter higher education emerges from the anticipated lack of an educated workforce (Nichols & Barger, 2021). For example, 74% of rural small businesses struggle to find qualified candidates for job opportunities (N.C. Rural Center, 2023). A substantially more educated workforce is needed to fill gaps in rural counties' healthcare, insurance, and hospital coverage and decrease rural counties' economic stress. Increasing enrollment, reentry, and completion efforts in North Carolina will work to establish the educated workforce needed to support future labor requirements. Additional research into developing strategies to increase completion for adult women learners in rural counties could aid institutions in creating sustainable wages and living conditions for their counties.

Institutional Barriers

For adult women learners, barriers from the institution take the shape of structural bias. Also, enrollment, registration, and financial aid processes can be difficult to navigate successfully for learners with a gap in their educational history.

Structural Bias

In higher education settings, the historical focus has been on traditional male learners creating a youth-centric, gendered design (Chen, 2017). The focus in North Carolina's community colleges is narrowing to incorporate dual-enrolled high school students (Nichols & Barger, 2021). Curriculum pathways need more flexibility to make them obtainable for adult women learners (Chen, 2017). Frequently, adult women learners with previous work experience have difficulty adapting to the culture, procedures, and rules of the learning environment and express frustration if prior work-based learning is not acknowledged by institutions or translated to credits (Askham, 2008; Nichols & Barger, 2021; Zart, 2019). The youth-centric culture is

often reinforced to adult women learners by not seeing other students their age or in campus marketing (Iloh, 2019). Promotional materials that contain images of traditional-aged students combined with language designed to appeal to younger audiences may leave adult students feeling the landscape of college is not user-friendly and lead to feelings of isolation (Bertolini, 2022; Fairchild, 2017; Illoh, 2019; Mallman & Lee, 2017; Stone & O'Shea, 2019; Zart, 2019).

An institutional culture designed for traditional learners does not align with students who have a part-time enrollment status or are employed (Chen, 2017; Sutton, 2019). Many community colleges implement policies and services at times not readily accessible to part-time or employed learners; for example, adult women learners struggle with office and lounge hours that are limited to the regular workday, and 81% desire increased access to the campus library (Glowacki-Dudka, 2019; Stone & O'Shea, 2019; Sutton, 2019; Yang & Venezia, 2020). Adult women learners further expressed finding parking on campus a challenge, with 86% citing parking as a barrier to success (Sutton, 2019). Further, 21% of adult learners reported parking as a significant struggle with their college experience, class attendance, and meetings. Some community colleges lack separate clubs for adult women learners, adequate or affordable childcare services on campus, lactation facilities, and limited family-friendly opportunities (Ajayi et al., 2022; Madden, 2018). Research suggests that consideration for adult learners needs to be incorporated when creating institutional policies, hours, and programs; however, there are no studies examining the outcomes of changes to institutional policies designed specifically for adult learners to increase the success of their college-going trajectory.

Enrollment and Registration

Community colleges use the open-door admission policy, meaning a diverse student pool applies and enrolls, with the only requirement being a high school diploma. The acceptance of

transfer course credit was reported as an essential part of the enrollment process by 65.7% of adult learners in one study (Crounse et al., 2018). Also, 82.4% listed the acceptance of previous work experience credit, and 75% reported taking a test for course credit as a factor in their college-going selection. Open-door admission policies of community colleges benefit adult learners to gain entrance; however, graduation rates do not correlate with enrollment rates and remain low as 67% of adult women learners stop out with no degree or credential (Gulley, 2021; Margarit & Kennedy, 2019; Renner & Skursha, 2022). Graduation predictors should incorporate adult learners, who represent the largest population of transfer and part-time students (North Carolina Community Colleges, 2022; Renner & Skursha, 2022). Further, the paucity of the population, transfer status, and elevated attrition levels may render adult learners invisible to higher education administrators (Chen, 2017; Gulley, 2021; Stone & O'Shea, 2019; NCES, 2021).

Barriers exist in the registration process, as 36% of adult learners report difficulty accessing the Registrar's Office (Chen, 2017; Stone & O'Shea, 2019). An additional barrier is inconsistent course offerings; 45% of adult learners report courses offered during weekday hours that did not match childcare or employment needs; 35% report needing courses that had no open sections, or coursework was not available in the needed sequence (Mallman & Lee, 2017; Stone & O'Shea, 2019; Sutton, 2019). The likelihood of adult learners meeting with an academic advisor during registration decreases with age; first-year learners aged 18-22 had a probability of 25% of attending an advising session, which steadily decreased from 12.8% for ages 23-27 to 4.6% for ages 43-47 (Roessger et al., 2019). Women learners were also less likely to attend academic advising sessions than men. Increased academic advising is linked to increased persistence and positive program outcomes. A gap in the literature exists as much of the current

research on persistence concentrates on 4-year institutions with traditional-age learners regarding graduation predictors, advising, and course offerings.

Finances

Some community college students come from economically disadvantaged homes and select community colleges due to affordability concerns. Adult learners reported that having the money to complete a degree increased the likelihood of persistence by 40% (Bergman et al., 2014). However, many adult students need assistance completing the FAFSA and financial aid forms outside regular office hours (Yang & Venezia, 2020). In addition, adult women learners may have financial pressures due to prior life debt, which decreases grant funding eligibility, and frequently do not qualify for scholarship opportunities (Ajayi et al., 2022). The likelihood of obtaining additional funding may be impacted by previous student loans, as can part-time enrollment to enable scheduling classes around employment or caregiver roles (Ajayi et al., 2022; Margarit & Kennedy, 2019; Simi & Matusitz, 2016).

Adult women learners desire to collaborate with community assistance partners and programs (Ajayi et al., 2022; Yang & Venezia, 2020). For many adult women learners, prior enrollments at various institutions cause the accrual of unpaid fees attributable to parking or library fines, creating holds on transcripts that the transfer of past credits earned from previous institutions (Nichols & Barger, 2021). Literature suggests deficiencies in the current financial aid services for adult learners; however, research is needed to determine if the implementation of support services positively affects adult learners' graduation rates.

Academic Barriers

Academic barriers are often due to a time-lapse in the adult women learners' educational history. This gap can cause the need for remedial coursework and difficulties with distance

learning. For some adult women learners, balancing employment with academics may be a barrier. Experiences with ageism and ableism can also be an issue for adult women learners and may lead to feelings of invisibility.

Remedial Coursework

Remedial coursework is designed to undergird the learner to succeed in required gateway English and math courses. The remediation takes the form of co-requisites taken simultaneously with the gateway course. As community colleges use open-door admissions, all learners can enroll; therefore, the institution provides remediation as needed. The co-requisite policy for remedial coursework became effective in North Carolina in 2020. Learners qualify for remediation if their grade point average is low or if there has been a ten-year gap in their education history. The gap may occur if the initial enrollment is ten years post-high school, due to transfers between institutions, or follows a previous stop-out. Many adult women learners qualify automatically if they are over the age of 29 at initial enrollment because of the gap stipulation (Chen, 2017; James, 2022; Margarit & Kennedy, 2019; Simi & Matusitz, 2016).

Gateway courses are required of all students, but when adult women learners are required to complete academic support coursework and the other learners do not, it can affect confidence and efficacy (James, 2022; Renner & Skursha, 2022; Stone & O'Shea, 2019). Consistently, adult learners who identify as women state time and life pressure as significant obstacles to schoolwork (Margarit & Kennedy, 2019; Steinhauer & Lovell, 2021). Learners taking remedial coursework are often in danger of failing the gateway English or math course and then needing to repeat it. The additional coursework may delay entry into desired programs of study and increase the time to credential (Simi & Matusitz, 2016). While remediation is designed to

supplement gateway courses to aid students in success, it has not been assessed to determine its impact on persistence and success.

Balancing Employment

Working adult learners often seek work-life balance, which can add stress beyond their control. Full-time enrollment may be prevented by time constraints available for coursework (Jepsen & Montgomery, 2009). Adult learners balancing education with employment frequently enroll part-time. Employment culture, daily job changes, and how flexible or supportive the employer can hamper adult learner success (Carreira & Lopes, 2021). Distance from the employment location to the institution may also restrict adult learners' educational choices (Jepsen & Montgomery, 2009). During the first year of enrollment, working adult learners have a significantly higher stop-out risk due to the added pressures of family responsibilities, anxiety, and health issues (Carreira & Lopes, 2021; Freeman et al., 2020).

For some adult learners, balancing employment deals with the difficulties of adjusting to the academic rigor and time management while juggling the various responsibilities and can cause internal tension and added stress (Carreira & Lopes, 2021; Chen, 2017; Freeman et al., 2020; MacDonald, 2018). When work and courses conflict, the likelihood of adult learners persisting to a degree decreases by 78% (Bergman et al., 2014). The literature identifies that balancing employment can be challenging for adult learners, and research is warranted to establish if coaching would assist working adult learners to persist.

Distance Learning

Community colleges developed distance learning initiatives as the demand for part-time study and flexible course offerings increased (Ives, 2019; Rabourn et al., 2018). During the COVID-19 pandemic, distance learning became the backbone of instruction, a significant

instructional shift for learners who previously utilized face-to-face courses (Babb et al., 2022; Renner & Skursha, 2022). Post-pandemic distance learning remained an important component for adult learners, as it can be scheduled around employment and other responsibilities (James, 2022). Distance learning allows student-parents to complete coursework at times convenient to family duties, including when children are asleep or involved with other activities. Online classes provide unique challenges to community college learners, and 53% report struggling with learning material on their own, that the self-paced structure of online instruction was intricate, and 21% report online courses as a challenge (Chen, 2017; James, 2022; Sutton, 2019; Zart, 2019).

Further, adult women learners cited having limited access to appropriate resources and devices, issues with internet connectivity, and decreased technical skills (James, 2022). For some adult women learners who select online learning to achieve a life balance with education, it can be isolating as it requires less interaction with peers and faculty (James, 2022; Stone & O'Shea, 2019). If adult women learners have a poor relationship with online peers and faculty, the difficulty of instruction increases, and comprehension decreases (Stone & O'Shea, 2019). The inadequate quality of these educational relationships also diminishes the likelihood that adult women learners will seek academic and technical assistance from the institution. Literature notes the need for improvement in Distance Learning relationships for online adult learners; however, limited studies exist into what resources community colleges can employ to increase the persistence of adult learners.

Research into adult women learners' college choices is focused on deficits of balancing education with employment or caretaking roles and does not explore trajectories beyond enrollment and the first year. The literature discusses how adult learners do not fit into the

traditional learning framework; however, the literature did not provide quantitative research to support this and ascertain what bias or supports adult women learners at community colleges perceive.

Summary

The problem of practice for this study is the persistence of adult learners ages 25-44 experience at Pineland Community College (PCC) resulting from a lack of persistence in gateway and general science education courses with a focus on adult learners who identify as women. Literature previously investigated the purpose of community colleges, sociocultural and gender bias and the various barriers and supports that impact adult women learners. The literature uniformly focuses on adult women learners' barriers to success and negative experiences; however, adult women live complex lives, and each will not have the same experiences that affect their college trajectory. This investigation seeks to explore the gap in the literature by discovering adult women learners' perceptions of scaffolds for their college-going trajectory. Minimum research has explored adult women learners in the context of the rural community college and their college experiences that affected persistence. This investigation expands on prior research to increase persistence in rural community colleges' gateway and general education courses for adult women learners.

As a literature review provided relevant information for this study, Chapter 3 addressed the methodology, study cohort, and data collection used to answer the research questions proposed in Chapter 1.

CHAPTER 3: METHODS OF INQUIRY

The purpose of this qualitative participatory action study is to design, implement, and assess an intervention program to increase the persistence of adult women learners in gateway and general education science courses at Pineland Community College. Chapter 3 describes the research design used to address the three research questions of the inquiry and describes the inquiry design, participants, and instrumentation. The chapter includes a discussion of the procedures of data collection and analysis, followed by a description of the methodological assumptions and limitations. The inquiry aims to inform rural community colleges of practical methods to increase adult women learners' persistence in gateway and general science courses. This inquiry utilizes a four-phase design and analyzes data collected through the photovoice interview design.

FoP Research Question(s)

The following questions guide this study:

1. What do adult women learners perceive as supports and hindrances in their college-going trajectory in gateway and general education science courses?
2. What intervention(s) can be implemented to increase the persistence of adult women learners in gateway and required general education science courses?
3. What are the effects of a customized intervention designed to increase the persistence of adult women learners in gateway and general education science courses?

For an outline detailing how the research questions relate to the inquiry's phases and the types of data intended to address each question, see Table 4.

Table 4

Phases of the Study

Timeline	Task	Data Collected/Used
Phase I RQ1	Recruit participants Conduct voluntary semi-structured individual interviews Collect images Exhibit images to stakeholders Code participant responses	Qualitative data from semi-structured interviews Qualitative data from participant images Field notes
Phase II RQ2	Hold discussions with inquiry partners Construct intervention strategy grounded on data collected and responses of Inquiry Partners Implement intervention strategy	Minutes of meetings with faculty and staff Baseline data Field notes
Phase III RQ3	Evaluate effects of intervention on practices and perspectives of inquiry partners	Records of intervention use Meeting minutes with faculty Secondary data Observation

Inquiry Design and Rationale

The purpose of this qualitative action research study was to design, implement, and assess an intervention program to increase the persistence of adult women learners in gateway and general education science courses at Pineland. The research method includes the photovoice interview design, which permits collaborative input from adult women learners and captures participants' voices and perceptions through the use of semi-structured interviews (Arnold & Casellas Connors, 2022; Creswell & Creswell, 2018; Cornell et al., 2022; Richard & Lahman, 2015; Wang & Burris, 1994). This methodology answered the research questions within the framework of Acker's gendered organization theory and Iloh's model of college-going decisions and trajectories (Acker, 1990; Iloh, 2019).

The qualitative inquiry technique of photovoice interviews is a participatory action design that uses minoritized participants' photography to convey information (Nykiforuk et al., 2011; Sastre, 2021). Participants shared stories about their photos to identify issues, beliefs, and values held by participants and provided a deeper understanding of the phenomenon (Nykiforuk et al., 2011; Roessger et al., 2019; University of Kansas, 2023; Wang & Burris, 1994). The interview was semi-structured, utilized open-ended questions, and encouraged a conversational style (Creswell & Creswell, 2018; Creswell & Guetterman, 2019). Semi-structured interviews allow for rich, personal stories and participant opinions and provide thinking time to participants (Creswell & Guetterman, 2019; Sudman & Bradburn, 1982). This type of detailed storytelling could not have been collected from quantitative surveys or focus groups in which participants might have felt uncomfortable speaking or overwhelmed by another participant (Creswell & Creswell, 2018). Building rapport and trust with participants during the one-on-one interview using the images as a springboard encouraged the phenomenological themes from the women's

personal life experiences to emerge (Arnold & Casellas Connors, 2022; Cornell et al., 2022; Creswell & Creswell, 2018; Creswell & Guetterman, 2019). Further, an interview provides opportunities for observation and guides the discussion as topics arise (see Appendix H).

The purpose of the photovoice design rests in the ability to generate action and change in a social justice issue through digital storytelling, which provides participants an opportunity to strengthen their voice and sense of ownership and provides an opportunity to express themselves (Nykiforuk et al., 2011; Roessger et al., 2019; Sastre, 2021; University of Kansas, 2023; Wang & Burris, 1994). The appropriateness of photovoice as a strategy aligns with the necessary flexibility of the development of the intervention after the data collection, analysis, and meaningful conversations with inquiry partners (Creswell & Creswell, 2018; Creswell & Guetterman, 2019; Latz & Mulvihill, 2017). The photovoice model allows participants to take part in the inquiry process (Arnold & Casellas Connors, 2022; Cornell et al., 2022; Creswell & Creswell, 2018; Nykiforuk et al., 2011; Richard & Lahman, 2015; Wang & Burris, 1994).

Imagery has become ubiquitous in our culture and widely accepted as a reflection of real life (Creswell & Guetterman, 2019). The technology and presentation of the photovoice responses are potent tools to stimulate stakeholder conversations (Sastre, 2021; University of Kansas, 2023). According to the literature, this population needs agentic language opportunities and representation on the NC Dashboards for Pineland (North Carolina Community Colleges, 2022). Further, photovoice promotes social change by empowering participant voices through sharing the experiences with policymakers and stakeholders, which increases confidence, mattering, and belonging to advance change to college outcomes and trajectories for adult women learners (Arnold & Casellas Connors, 2022; Creswell & Creswell, 2018; Cornell et al., 2022; Iloh, 2019; Latz & Mulvihill, 2017; Wang & Burris, 1994). The exhibition of images

allows inquiry partners to collaborate and facilitate buy-in through personal observation before collaborative discourse to develop the intervention strategy. Moreover, images present a reality to a larger audience that is harder to ignore when drafting future policy (Latz & Mulvihill, 2017; Sastre, 2021; University of Kansas, 2023; Wang & Burris, 1994).

Pineland had previously hosted exhibitions in the Learning Resource Center, which had proven a significant source of inspiration for a diverse sub-section of stakeholders, including trustees, foundation members, faculty, staff, and students. Numerous people attended previous exhibits, and it was expected that the current exhibit would generate a platform for stakeholders to engage in discussion through the experience (Cornell et al., 2022; Latz & Mulvihill, 2017; Nykiforuk et al., 2011; Sastre, 2021; University of Kansas, 2023). If the content of the images and accompanying narratives had made the administration uncomfortable or if a physical exhibit had been prevented, a digital alternative was planned. The exhibit was meant to highlight adult women learners' perceptions of supports and hindrances while permitting the institution to develop response options at various cost levels to improve institutional practice based on the findings (Sastre, 2021).

Data collection included the photovoice open-ended interview with images and meaning ascribed by the participants (including probes designed to encourage participants to elaborate), audio recordings, observations, and documentation of meeting minutes with inquiry partners (Latz & Mulvihill, 2017; Nykiforuk et al., 2011; Wang & Burris, 1994). Questions for the interview were drawn from other photovoice inquiry designs and reviewed by inquiry partners through the pilot study survey (Eelderink, 2018; Nykiforuk et al., 2011; Sastre, 2021). The data analysis configuration of coding learner responses and images was in the service of identifying themes and patterns (Saldaña, 2021). The narrative included objective data from the interviews

and observations, including direct quotes from the participants' responses. It was determined to use reciprocity through the pilot study due to the intimate nature of the interview and the images participants share (Creswell & Creswell, 2018).

Alternative inquiry designs included surveys to faculty regarding how they perceive adult women learners compared to other student populations, as well as a survey for adult women learners. These design methods did not address the first research question's focus on student perceptions of hindrances and supports or provide the needed rich data. Also considered were semi-structured interviews without the photovoice component; however, the literature indicates that women hesitate to discuss themselves, and the photograph provides a focus for the participants. Given the purpose of the inquiry, the research questions, and the theoretical framework, the photovoice interview design was appropriate.

Context of Study

Pineland is a small, rural community college similar in size to neighboring community colleges in southeast North Carolina. Within the county are two school districts consisting of five area high schools. It comprises agricultural farmland, hog farming, swamp land, and several small communities and is home to the Coharie Tribe. Primary employers within the county include agricultural businesses, government, manufacturing, retail, health care, and social assistance.

The Carnegie Classification of Institutions of Higher Education designates Pineland as a public, two-year, single-campus college. Degrees awarded include Associate degrees and terminal credentials to assist in workforce development. The college's mission is to enrich the local community through affordable education. Outreach, innovative and effective teaching, student support, and community partnerships accomplish the mission. A key focus of the

institution remains dedication to helping learners achieve workforce development and training to enhance the local economy and lifelong enrichment. Pineland strives to preserve its cultural identity and maintain the respect of the constituents within the local town and greater county area. The college's image and identity are influencers with administration and stakeholders.

North Carolina plans to increase the number of adults who earn a family-sustaining wage exceeding 300% of the federal poverty line without relying on financial assistance from other sources (myFutureNC, 2021; NC Rural Center, 2023; Nichols & Barger, 2021). In 2021, the number of mid-level adults aged 35-44 who earned a family-sustaining wage in North Carolina reached its highest point in 15 years, with a state average of 57% (myFutureNC, 2021). Rural counties need additional infrastructure, affordable housing, and adequate healthcare. Therefore, many residents commute outside their county for employment (NC Rural Center, 2023). In Pineland, 60.6% of residents work outside the county, while 39.4% of the county workforce commutes to Pineland.

North Carolina aims to increase adult degree attainment to 66% of the population, or 2 million adults with a degree or credential, by partnering with the community college system (myFutureNC, 2021; NC Rural Center, 2023; Nichols & Barger, 2021). Currently, 1.3 million adults aged 25-44 need a post-secondary degree or credential, and 19.8% started college but stopped (myFutureNC, 2021, Statista Research Department, 2023). Pineland's population with some college or higher was 46.6%, while 25.2% have an associate degree or higher.

As of 2019, 39% of 58 North Carolina community college enrollment was for adults over 25, and 60% of adult learners nationwide were women (Nichols & Barger, 2021). Due to an open admission policy, Pineland enrolls roughly 1,700 students in six curriculum pathways broken into 30 programs with a diverse learner base (see Figure 1). In the Fall semester of

2023, Pineland became a Hispanic Serving Institution in North Carolina, as 31% of the student population identify as Latinx learners (Bednar, 2023). In the Spring 2022 semester in the curriculum program, 13.7% of adult learners identify as Latinx, and 81.8% of this population identify as women. Within Pineland's adult learner population, 19% are men, 81% are women, and many come with some college or no degree. The inquiry aligned with North Carolina's efforts to increase the rural educational attainment of adults by focusing on adult women learners ages 25-44 who paradoxically are both the most significant adult learner population at Pineland and simultaneously are minoritized compared to the total curriculum enrollment (see Figure 2).

Disaggregated enrollment data demonstrate that 58.7% of the adult women learners at Pineland register for CTE curriculum programs that require gateway and general education science courses (see Figure 3). The prominent pathway selected by adult women 25-44 years of age was health programs, with 51.6%, of which 31% are nursing, 15.5% are nurse aides, and 5% are other health programs (see Table 5). For many of Pineland's adult women, the nurse aid program becomes a holding place for pre-nursing students who await acceptance into the nursing program. The entrance requirements include completing the gateway course CHM 092 within the previous ten years; however, many adult women learners have surpassed the ten-year window. The withdrawal rate for CHM 092 in 2021-2022 was 62.5%, with a total non-success rate of 71%. Therefore, CHM 092 acts as a barrier for adult women learners to the nursing program and results in delayed completion (see Table 6). Of the additional academic pathways, 20% of adult women are in business, 15.5% are in education, and 12.7% are in applied technical programs or public service.

Table 5

Adult Women Learners by Program Spring, 2022

Program	Total Number of Students	Student %
Health Services	113	51.6
Business	44	20
Education	34	15.5
Other	28	12.7

Note. n= 219.

Table 6

Adult Women Learners Withdrawal by Course

Course	Total Number of Students	Withdrawal %
20-21 BIO168	47	27.6
21-22 BIO 168	32	56.2
20-21 CHM 092	30	56.6
21-22 CHM 092	24	62.5
20-21 CHM 151	11	63.6
21-22 CHM 151	12	91.6
20-21 ENG 111	56	35.7
21-22 ENG 111	66	42.4
20-21 ENG 112	42	28.5
21-22 ENG 112	52	28.8
20-21 MAT 110	13	46.1
21-22 MAT 110	16	31.2
20-21 MAT 171	9	66
21-22 MAT 171	10	50

Note. n= 420.

Regarding unifying programs or clubs, there are none designated for this population connected with the institution, as there are for other learner groups, including LGBTQ+ Safe Space, Permission to Dance Club, Juntos for Latinx students, and the Early College's game club, Key Club, and Beta Club. The college does not offer evening hours for various offices, the library, or advising for curriculum programs. In addition, there is no main area for adult learners to come together. Childcare assistance is available from Student Services; however, adult learners are less likely to search for assistance, and no childcare services are provided on campus (Zart, 2019).

In the NCCCSO, comparisons consist of like-sized institutions of success rates for various learner cohorts based on first-time enrollment in gateway courses. This cohort composition needs to include learners who transfer between institutions, are returners from a previous stop-out, are enrolled part-time, or have withdrawn from classes in previous semesters. This series of factors describes the primary composition of Pineland's adult women learner population; thus, this population remains excluded from the state cohort configuration for any given cycle. For example, in 2018, the state reported that fewer than 20 students from Pineland's cohort of adult women learners completed ENG111, thereby rendering them inconsequential. The lack of inclusion in state data was a part of the system's gendered organization issue. Adult women learners' simultaneous marginalization results from the sociocultural constructs of womanhood, experiences of implicit gender bias, and the paucity of the population.

Collaborative Inquiry Partners

Through collaborative shared dialogue, input was sought from various stakeholders and institution members from the initial data gathering to the intervention strategy's design,

implementation, and evaluation (see Table 3). The initial course of action was to gain approval from the President at Pineland to permit site access to conduct the study (Creswell & Guetterman, 2019). Information about the inquiry's purpose, resources, and potential conclusions was shared.

Consultation with The Vice-President of Academic and Student Affairs occurred throughout the inquiry, including during the development of the inquiry. She acted as a liaison with the President and with division chairs. Post interview, the images and narratives selected for the exhibit were shared with the VP and President to allow for feedback and to prevent any potential embarrassment to the college. The Vice-President also provided input regarding the development and implementation of the intervention.

The Dean of Students Services provided all data for the baseline assessment. The Dean assisted with data disaggregation throughout the inquiry, including using the North Carolina Dashboards and providing guidance to acquire and understand student success statistics, persistence, and retention. Finally, the Dean explained the purpose of the identifier of “dual enrollment” as opposed to “under 18” to depict the nuances between traditional and dual enrolled students. Post-intervention, the Dean provided the secondary data for Phase IV consisting of the success and withdrawal data for all populations.

Multiple faculty member consultations occurred during Phase I and Phase III. These inquiry partners reviewed interview topics during Phase I for rigor, trustworthiness, and completeness, including the Department Chair of English (as the most required gateway subject) and faculty members from psychology and criminal justice, a CTE program, through a survey conducted during the pilot study. In Phase II, faculty inquiry partners served as a referral source for potential participants. A nursing instructor inquiry partner for Phase III was sought, as health

care remains the primary pathway for adult women learners. Phase III entailed inquiry partners collaborating through individual or small group meetings regarding the design of the intervention based on their perceptions, the exhibit, and what they believe promoted a positive change in persistence. Faculty have connections to classroom culture and student-faculty relationships as experts.

The art instructor, a local professional photographer, the library team, and student workers aided in the exhibition processes. Following the exhibit, the art instructor, marketing director, and photographer viewed the images for any visual themes in the format or structure of the images, as this was outside my area of expertise. They participated in the coding process by journaling reflections regarding the photos and the meaning assigned by the participants.

The library assistant possessed the expertise that was key to the design of the intervention. Next, the library assistant facilitated the launch of the intervention by acting as a bridge with faculty and staff to secure buy-in.

Ethical Considerations

Ethical considerations guided all phases, as the inquiry involves the confidentiality of the learners' data and identities (Creswell & Creswell, 2018). Initially, the study proposal was submitted for the approval of the Institutional Review Board (IRB) before the process of the recruitment of participants or collection of data. Permission was granted (see Appendix A). Creswell and Creswell state that the IRB approval process assesses potential risks for participants and the needs of vulnerable populations. Site permission preceded the initiation of the inquiry.

As part of the IRB process, informed consent forms that guarantee participant confidentiality and the right of the participant to withdraw from the inquiry at any time were

composed (see Appendix B). The informed consent explains details such as the inquiry's title and the researcher's name, the inquiry's purpose, the intended goal, and the process of selecting participants. It describes what participants were asked to do, and it indicates that the interview was audio-recorded and transcribed. Further, an assurance was provided that all participant information was kept confidential, participation was voluntary, participants may have withdrawn at any time, and there was no payment for involvement in the inquiry; however, reciprocity was provided in the form of an electronic Amazon gift card. Informed consent outlines any benefits and risks associated with study participation, the anticipated timeline, how the research information was stored, and the researcher and IRB contact information.

The participants attended an individual semi-structured photovoice interview to build a relationship of trust and prevent undue influence from other participants (Creswell & Creswell, 2018; Eelderink, 2018). The interview was scheduled through Watermark Student Success and Engagement (Watermark), an online platform designed to improve student outcomes, increase retention, and engage underserved students. All interviews were held at a time and location comfortable to the participants (Creswell & Guetterman, 2019). During the interview, the informed consent form was reviewed to ensure participants read and understand the information in the document. To avoid coercive pressure, real or perceived, all participants received assurance that participation did not impact grades or financial standing. All questions were answered, and participants were able to withdraw if desired. Each participant was required to sign the informed consent form, and a copy of the informed consent form was sent electronically to the participant through Watermark to her school and personal email.

Each participant reviewed the ethical considerations inherent in the photovoice process before discussing images in the interview. Participants received a photoguide indicating the

importance of avoiding unethical images, the invasion of privacy, the use of faces, identities in the captions, identifiable photos of children under 18, and imagery of an embarrassing nature (see Appendix C; Latz & Mulvihill, 2017; Nykiforuk et al., 2011; University of Kansas, 2023). Participants informed any faculty and classmates who appeared in images, and an informed photography consent was designed and provided to participants (see Appendix D; Latz & Mulvihill, 2017). The photography consent form assured those photographed that, if recognizable, they have provided their consent before any image was published or displayed. Information in the photography informed consent detailed the title, purpose of the inquiry, and what the participants would do. Participants received assurances that no identifying information, such as names, appeared in any publication, social media site, or presentation. Any benefits or risks associated with being photographed was detailed, including the timeframe and storage methods of the images and the researcher's and IRB's contact information.

The participant asked questions regarding the photovoice guide and obtained an electronic copy through Watermark. Ownership of the images was explained to the participants, as each maintained the original digital document. However, any image provided to the inquiry may be published or displayed after obtaining photography consent. At this time, participants received a reminder that they could withdraw if they desired. Participants received a tangible copy of the photography consent and an electronic one through Watermark.

The research design was such that no harm came to the participant or inquiry partners. Homogenous purposeful sampling to select participants was used (Creswell & Creswell, 2018; Creswell & Guetterman, 2019; Sastre, 2021). The photovoice interviews followed a semi-structured format using a pre-designed interview protocol. This format allowed leeway for the discussion to evolve organically within a provided structure; however, to avoid coercive

pressure, no details from my personal history was included in the coding cycles (Creswell & Guetterman, 2019). In the role of the researcher, I was responsible for ensuring the participants felt comfortable answering the interview questions in an honest and open format. The photographic nature of the research required confidentiality and assurances to every participant that her anonymity was protected (Creswell & Creswell, 2018). All identifying information was removed during the interview, analysis, and reporting process. Each participant was designated a pseudonym, each image numbered for anonymity, and observations were protected to preserve the study's validity (Creswell & Guetterman, 2019; Latz & Mulvihill, 2017). All portions of the research data were labeled with a system to keep aliases, images, reflections, observations, and summaries together and prevent cross-sampling (Creswell & Creswell, 2018).

Forms and other tangible physical data (photos, researcher field notes) were stored in a locked filing cabinet in my office indefinitely (Creswell & Guetterman, 2019; Latz & Mulvihill, 2017). All interviews, transcribed data, and coding generated from the interviews was entered into software (Microsoft Word, Wordle.net), along with electronic copies of the images and captions, and stored on my password-protected computer indefinitely (Saldaña, 2021). Audio files generated from the interviews were stored on a passcode-protected phone and transferred to a protected computer for three years (Creswell & Creswell, 2018; Latz & Mulvihill, 2017). Any backup data on storage devices was locked in a filing cabinet in my office for three years and subsequently destroyed.

Inquiry Procedures

This inquiry was conducted through a qualitative participatory action research study across three phases to address the research questions within the theoretical framework described in Table 4. Initially, for heuristic purposes, baseline data were collected to determine if

Pineland's adult women learners' success rates correlated with a review of relevant literature and served to select the research design. A pilot study was conducted to establish the appropriateness of the inquiry's emergent design and determine the methodology's feasibility (Creswell & Creswell, 2018). For the pilot study, the photovoice interview topics were sent to faculty collaborative inquiry partners as experts in the community college arena to provide feedback and for vetting. Two adult women learners were selected to participate in the pilot study. Following this, IRB approval was acquired to initiate the study.

Phase I entailed initiating the recruitment of 7-10 participants and the individual semi-structured photovoice interviews. The photovoice method was introduced to the participants during this phase (Cornell et al., 2022; Sastre, 2021). Further, the semi-structured interview method with images acting as a guide allowed the participants to develop rapport and relax during the interview process (Eelderink, 2018; Nykiforuk et al., 2011). The coding process occurred to develop themes from the photovoice interviews. Phase I concluded with a presentation of the images at an exhibition to campus stakeholders in the LRC.

In Phase II, codes were shared with faculty inquiry partners through shared dialogue. An intervention strategy was designed based on the data collected, the themes, and discussions with inquiry partners. Once developed, the intervention was deployed.

The intervention strategy was evaluated in the final phase, Phase III. The post-intervention data were compared with the baseline data to analyze the impact of the intervention on adult women learners' persistence. An overview of how the research questions align with the study's phases and the data collected is available in Table 7.

Table 7

Corresponding Data Source to Research Question

Research Question	Data Source
1. What do adult women learners describe as supports and hindrances in their college-going trajectory in gateway and general education science courses?	Interview questions: 1, 3, 4, 5, 6 Images and captions
2. What intervention(s) can be implemented to increase persistence and the college-going trajectory of adult women learners in gateway and required science courses?	Interview questions: 3, 4, 7, 8, 9, 10 Minutes from meetings with inquiry partners
3. What are the effects of the intervention selected on adult women learners' persistence and college-going trajectory in gateway and general education science courses?	Secondary data accessed from inquiry partners

Baseline Data Collection

For heuristic purposes, an accumulation of secondary data occurred to methodologically identify the exact nature of the problem of practice, document its existence, and establish inquiry partners. Background data were collected, including success rates, withdrawal rates, and enrollment data to identify the nature of the problem methodologically and document the problem's existence. The baseline data determined whether the adult women learners struggle with success or withdrawal rates at the Pineland campus compared to other learner populations.

The Dean of Student Affairs provided information to generate the baseline data regarding the persistence and success of traditional, adult women, and dual-enrolled learners in Pineland's gateway and general education courses over the four consecutive semesters of 2020-2021 and 2021-2022. The data contained no student names (to protect student identity) and was used to disaggregate the differences in the success and D/W/F rates for each learner type. Calculating an average of the data established that adult women learners experience a significantly higher withdrawal rate (see Table 1). The initial data complied with course and semester averages to establish an aggregated average for all seven courses per semester by population.

In addition, the Dean provided the unduplicated enrollment for Spring 2022 for all curriculum students. He explained that the appropriate term for students younger than traditional age was dual enrolled students, as traditional students and high school students were both 18 years of age. The initial data regarding student success rates and population demographics were delivered electronically to prevent data modification. The data disaggregation occurred by spreadsheet to three population groups -- adult learner, traditional, and dually enrolled. The adult women learner sub-group was sorted by the program of the study as identified by program code and color-coded for purposes of differentiation and sorted to remove those outside the study's

boundaries. Next, all curriculum pathway program flyers were collected and analyzed to determine the required gateway and general education science courses for each, thereby eliminating some curriculum students.

The data reflect that curriculum adult women learners required to enroll in gateway and general education science courses, excluding college transfer, represent 12.9% of the curriculum population and 60% of the adult population, thereby demonstrating the populations' status as minoritized and the possibility that the institution only partially hears their needs (Patton et al., 2016). Further, the NCCCSO reports the population of Pineland's adult women learners enrolled in a gateway course as insignificant and immeasurable compared to other community colleges. Finally, the baseline data extrapolated the problem as a higher withdrawal rate for adult women learners, not a failure rate. While the data exist, there was currently no proactive action on campus to promote retention for this population.

Pilot Study

To answer research question #1 (What do adult women learners perceive as supports and hindrances in their college-going trajectory in gateway and general education science courses?), a pilot study was designed and conducted. Additionally, the pilot study design sought to establish the feasibility of the photovoice interview inquiry design. It was unclear whether participants were willing to share images from their lives, had time for two meetings, or preferred one semi-structured interview without pictures. The subsequent sections detail the recruitment strategies, the instrumentation, the data collection procedures, the analysis of the feasibility of the inquiry design, and adjustments made afterward.

Description of Participants and Recruitment Strategies

Participants in the pilot study were selected using a homogenous purposeful sampling strategy. Recruitment through purposeful homogeneous sampling allows the research design to identify a subgroup population with similar defining characteristics (Creswell & Guetterman, 2019). The sample design used in the pilot study was intentional to ensure eligible participants were adult women learners between the ages of 25 and 44 and enrolled in CTE programs at Pineland during the Summer 2023 semester. Students must have completed, attempted to complete, or were currently enrolled in one of the seven gateway or general education science courses identified in Table 1. Recruitment for the pilot study was deliberately limited to two learners who met these requirements to narrow the focus to the participants' narratives and the multi-interview data collection structure (Creswell & Creswell, 2018). Limiting the sample size emphasized the participants' experiences over the 5-week summer term through multiple data sources (Creswell & Creswell, 2018; Creswell & Guetterman, 2019).

The strategies to recruit the participants included two sources: one was from a faculty inquiry partner referral, and one was a student with whom I had a previously established relationship. While two adult women learners were initially selected to participate in the photovoice interviews, only one participated in the complete pilot study. The second participant withdrew after the initial interview meeting.

Instrumentation

The intention was to assess the research design's feasibility, limitations, and strengths and to answer the first research question with one interview meeting and one semi-structured photovoice interview. Two separate interview protocols were designed. The initial meeting aimed to help participants feel a sense of safety and rapport to share their stories and images later

in a secondary semi-structured interview (Latz & Mulvihill, 2017). The initial meeting protocol was used as a guide during the meetings to ensure all participants received the same information regarding the study. Sessions were intended to provide participants with details regarding specifics of the photovoice design and used 14 pre-designed statements to inform participants of the inquiry's purpose; however, if participants elected to discuss their perspectives of their college experience, they were not discouraged from continuing to express their point of view (see Appendix E). Statements include:

1. The purpose of this research study is to design, implement, and assess an intervention program to increase the persistence of adult women learners in gateway and general education science courses at Pineland.
2. This interview and the next one will collect information from adult women learners ages 25-44, such as yourself, in curriculum programs.
3. Photographic images will also be used as another tool for the study.
4. You may elect not to participate in the study at any time without unwarranted censure or repercussions. If you would like, you may leave at this time.

An electronic survey of potential interview questions was sent via email to explore the limitations and strengths of the inquiry and inform collaborative inquiry partners of the focus of practice. The inquiry partners involved one adult woman learner and six faculty inquiry partners. Of the faculty members, two were from CTE programs, and four were from the college transfer program. The purpose was to allow for feedback and comments to assess the credibility and dependability of the second instrument (see Appendix F). In addition, several faculty inquiry partners who were available during the summer session received an electronic copy of the semi-structured interview questions for vetting purposes.

Secondary semi-structured interviews were intended with each participant to view and discuss the images (see Appendix G). A semi-structured interview protocol was developed with six pre-created questions to guide the interview and address all intended questions (Creswell & Creswell, 2018). Questions included for each image were:

1. Can you describe what is happening in this image?
2. Why is this image meaningful to your college experience?
3. Have you, as a participant in this inquiry, changed your view of your college experience?
4. Do you think anything needs to change? If so, what and how?
5. How did this experience impact you?

It also permitted the freedom for the interview to pivot and cover any additional topic that evolved during the interview (Creswell & Guetterman, 2019). The questions were open-ended, and the semi-structured interview provided flexibility for deviation depending on the conversational style of the interview to allow participants to assign their meaning to the images (Latz & Mulvihill, 2017; Wang & Burris, 1994). Additional adaptability was built through probes included in the protocol for clarification or elaboration (Creswell & Guetterman, 2019; Eelderink, 2018). The semi-structured interview style was appropriate for the inquiry, as it reflected the hope that the participants would share profoundly personal life experiences not attainable through close-ended or survey data collection tools (Creswell & Creswell, 2018).

The initial question was to make the participants comfortable and build rapport by asking participants what was happening in the first image (see Appendix G). If needed, additional probes included asking what the setting was and what was happening in the picture. Consecutive questions were projected to explore the photographic images provided by participants and asked

if the image reflected either support or hindrance to the participants' college experience, followed by asking what meaning the participant assigned to the image to gain her perspective of her college experience. Then, I asked participants if the experience of contributing to the study personally impacted them, and this question served to ascertain the participants' perspectives of their college-going trajectory and evaluate if they classified their college-going reality as non-linear. Finally, viable interventions were sought by asking participants what, if anything, needed to change at Pineland.

Data Collection

After baseline data collection and analysis completion, two inquiry partner meetings were held before participant recruitment to discuss the focus of practice. After narrowing the potential topic list, an electronic survey was sent to eight inquiry partners for review and to establish the credibility of potential interview questions (see Appendix F). Individually, I approached participants to schedule initial meetings. The meetings took place in the Learning Resource Center on campus to decrease any potential stress for the participants.

Initial Participant Meetings. Potential participants were asked about their semester schedule and day-to-day life during the initial meeting to put them at ease. Next, I sought the participants' permission and discussed the study's purpose. Afterward, I informed participants that an additional interview would occur in two weeks. The composition of the participant population, the purpose of the photographic images, and the use of information were reviewed. Participants were made aware that participation was voluntary and that they could withdraw at any time without repercussions. The informed consent was provided and reviewed (see Appendix B). A photoguide outlined what the participants were to do and the ethics of images (see Appendix C). Confidentiality and the use of an alias to protect participants' anonymity were

discussed, and participants were informed that the second interview with images would take roughly 60 minutes and would be recorded and transcribed. Participants received a copy of the informed consent and photoguide through Watermark email. All participant questions were addressed. Each participant was thanked, asked to sign the informed consent, and provided contact information. The study participants had two weeks to take photographic images on their smartphones.

Secondary Interviews. The intended secondary interview was held face-to-face at a location and time scheduled by the participant. I reminded the participant that participation was voluntary and addressed all questions. Participants learned that a recording of the interview was made on an Apple device, and a verbatim transcription was made post-interview. At this time, the interview began using the designed protocol, and notes were taken on the interview protocol in case the recorder malfunctioned. After the interview, I thanked the participant and verified she had all the needed contact information.

The secondary semi-structured photovoice interview was conducted with one adult woman learner participant. All interview data were transcribed, and electronic field notes were generated. The purpose was to allow for the determination of the feasibility of the photovoice interview research design to address the first research question.

Data Analysis

During qualitative research, data analysis begins during data collection and continues after the collection process (Creswell & Creswell, 2018). As a result, analysis occurred throughout the pilot study process and revealed that the phases cannot be prescribed. Data were analyzed to make resultant changes to the emergent methodological design, as the pilot study served to identify flaws within the study design. The emergent methodological design required

adjustments to the collection technique's instrument and structure. Last, it was determined that the inclusion of reciprocity for participants was appropriate due to the highly personal nature of the stories shared and because of the requirement of time on the part of the participants.

Results. Eight inquiry partners were sent an electronic survey of potential topics included in the secondary interview, and three responded with questions regarding the purpose and design of the questions. A face-to-face meeting was held with a gateway English inquiry partner who expressed concerns regarding the topic, the demographics of the population, and the reason the inquiry population was selected. This inquiry partner also questioned the programs chosen for the inquiry, what the term “adult learner” implied, and expressed, "Well, in my experience, they want credit for not doing the work." She also was interested in the population's size and withdrawal rates. After the face-to-face discussion with the gateway English faculty member, a face-to-face meeting was held with an additional inquiry partner to review the concerns raised. The feedback from the inquiry partners reiterated the need for the inquiry on the Pineland campus. Also, other open-ended interview questions were added to the study.

Participants were recruited using two different strategies. The first participant, CeCe, is an adult woman learner with whom I have a previous relationship. In the LRC, CeCe was approached about participating and was provided the purpose of the study. CeCe gave a short interview during the initial meeting and expressed a desire to participate and capture photographs; however, she elected to withdraw and did not sign the informed consent, receive the photoguide, or have the secondary interview.

The second participant, Tonya, was referred by a faculty inquiry partner, and she agreed to participate. During the initial meeting, the meeting protocol was used (see Appendix E). Tonya received the photo guide, and she was informed of the process of capturing images, the

purpose of the inquiry, the option to use an alias, and the timeline (see Appendix C).

Furthermore, I explained that participation was voluntary and that she could withdraw at any time. She signed the consent form and provided the contact information, and we scheduled a time to meet again. The participant received copies of the informed consent, photography informed consent, and photo guide Watermark email.

While the pilot intended a face-to-face secondary interview, Tonya could not schedule a time to meet. She was given the choice to meet on or off campus to increase her comfort level and establish a relaxed atmosphere, and she was provided the option to email images. The first two scheduled meetings did not occur as Tonya obtained employment, and she also expressed difficulty with the technology of emailing the images, stating, "Perhaps my son can help me." After several weeks, I offered the solution of texting the images and received six images via text. The interview was conducted through text, as it was easier for Tonya and her schedule; therefore, the audio recording did not occur. Tonya identified two images as the most meaningful and was eager to participate by providing detailed answers to the interview questions. In addition, Tonya expressed many of the themes in the literature, including the conflicts and guilt associated with a student with many responsibilities, including motherhood and working. The data provided by Tonya served the purpose of establishing the feasibility of the inquiry.

Adjustments to Design. After the pilot study, I incorporated adjustments into the instrument and design for Phase I. The instrument comprised one interview rather than two, during which the participant did show images currently on their phone's photo app or social media with the provision that they took the picture themselves. The two interview protocols were combined to contain 11 procedural statements to preserve the instrument's integrity across interviews and 11 questions (see Appendix H; Creswell & Guetterman, 2019). Additional

questions were added to the protocol to gain the participants' perceptions concerning why they chose to enroll, what impacted their success most, and whether they felt their college opportunities had increased or decreased. Participants reflected on possible interventions by answering what programs and services the institution could offer to support their success. Lastly, participants answered a question regarding whether they were comfortable having their picture captured during the interview.

The inquiry's data collection structure was adapted to lessen any potential difficulty experienced by the participant, including the possibility of texted images, emailed, brought in person, or hand delivered based on the participant's needs and to prevent technology as a barrier. While face-to-face interviews were the preferred method, interviews were offered over the phone, via videoconference through Teams, or through text, contingent on the participant's schedule and comfort level.

The original methodological design did not include reciprocity; however, offering some form of reciprocity was deemed appropriate due to the intimate nature of the shared images, experiences, and details (Creswell & Guetterman, 2019). Also, while Tonya described her college perceptions and experience, I wanted to express that her experience was valid; therefore, I provided an Amazon gift card. In addition, the pilot disproved the concern that the participants would have been unwilling to share personal photos.

Summary of the Pilot Study

The purpose of the pilot study was to establish the feasibility of the emergent methodological design to answer the first research question (What do adult women learners perceive as supports and hindrances in their college-going trajectory in gateway and general education science courses?) by using one guided meeting and one semi-structured photovoice

interview instrument and photovoice for data collection. The pilot study allowed the construction of the initial scaffolding with the inquiry partners. Data collection demonstrated that the Phases were not prescriptive, and data analysis realigned the structure of Phase I by the resultant development of a new instrument and single semi-structured interview.

Phase I

Phase I followed IRB approval to answer the first research question (What do adult women learners perceive as supports and hindrances in their college-going trajectory in gateway and general education science courses?) through a semi-structured photovoice interview. The following subsections describe how the sample was determined, participant eligibility, and recruitment strategies. Further, details of the instrumentation used during the semi-structured photovoice interview, data collection procedures, and the exhibit to stakeholders follow. Data analysis occurred as data were collected.

Description of Participants and Recruitment Strategies

Qualitative research in this study had a small sample size due to the in-depth nature of the interviews and complex data analysis (Creswell & Creswell, 2018; Creswell & Guetterman, 2019). Attributable to the involved time requirements of the photovoice method for the participants and the process of data collection and analysis, a voluntary sample with a size of fewer than ten participants was recommended (Creswell & Creswell, 2018; Eelderink, 2018; Nykiforuk et al., 2011; University of Kansas, 2023).

Eligibility of the participants consisted of a homogenous sample to answer the inquiry's research questions, which related to a group with similar characteristics of gender, age, and pathway (Creswell & Guetterman, 2019). For this participatory action inquiry, the participant sample included seven to ten adult women learners aged 25-44 enrolled in a CTE pathway at

Pineland. Eligibility for potential participants required current enrollment, previous completion, or attempt of a gateway or general education science course consistent with the studied phenomenon as confirmed through Watermark by the library assistant (Creswell & Guetterman, 2019; University of Kansas, 2023). Learners in college transfer were omitted along with learners who identified as male, were outside the age criteria, were dual-enrolled, or were traditional students. In addition, faculty learners, staff, employees, spouses, and their children were excluded from the inquiry, as students must meet stringent eligibility requirements and verification of all potential participant's ages, programs, and pathways through Watermark. For elucidation, the number of previous stop-outs and restarts was noted, along with race, marital status, and credits completed.

The study ran the risk of a skewed sample, as students under 25 may be labeled non-traditional due to various life experiences. Also, there was concern that the participants needed to accurately represent the adult women learner population due to the paucity of the population, to not impact the results (Nykiforuk et al., 2011). Participants represented a diversity of parenting and marital status and have differing numbers of credits completed (Creswell & Creswell, 2018). Participant recruitment did not consider race, ethnicity, and socioeconomic status in participant recruitment; however, recruitment strategies attempted to include a racially diverse sample. Attempts included prorating the participant group to reflect the program composition of adult women learners.

The participants were recruited by email, referred from inquiry partners, and by conversations held with students with whom I had a previous relationship and who met the inquiry's eligibility requirements. Referrals were sought from inquiry partners by phone or face-to-face conversation. If achieving a significant sample was unsuccessful, the recruitment strategy

continued through Watermark email by filtering within the inquiry's boundaries to solicit participants (see Appendix I). Due to attrition in the pilot study and to ensure the target participant number, the recruitment strategy exceeded the necessary sample size and sought 20 initial participants.

Instrumentation

Data collection to answer the first research question involved conducting a semi-structured photovoice interview with the selected participants. Photovoice uses images during the interview as a focus point to guide the interview and the participant and elicit additional information (Eelderink, 2019; Latz & Mulvihill, 2017). The use of photovoice was appropriate for the inquiry of adult women learners as they are a minoritized learner population at Pineland, and the photovoice design empowers participants by providing a method to self-advocate (Eelderink, 2019; Nykiforuk et al., 2011; Sastre, 2021). Open-ended questions generated flexibility in the interview process, allowing participants to designate personal meaning to the images and divergence from the guide (Latz & Mulvihill, 2017; Wang & Burris, 1994). Participants may have said things during the interview that did not reflect how people act in the images or the captions; therefore, additional adaptability was built through probes included in the protocol for clarification or elaboration (Creswell & Guetterman, 2019; Eelderink, 2018).

The semi-structured interview was appropriate as it attempted to gather the participant's experiences in a gateway or general education science course and personal details that are not collectible through close-ended or survey data collection tools (Creswell & Creswell, 2018). An interview protocol was developed based on changes implemented after the pilot study to guide the interview with 11 statements regarding the procedure of the interview process and seven pre-

determined open-ended questions to structure the interview (see Appendix H). Questions included:

1. Why did you decide to enroll at Pineland currently? What affected your choice?
2. Do you have a picture to share? Can you tell me what is happening in this image?
3. How does this image reflect support or hindrance to your college experience? If no image: What types of supports or obstacles affect your college experience?
4. Why is this image meaningful to your college experience?
5. Can you tell me if your college opportunities have increased or decreased?
6. What do you think about the programs or services available here?
7. What type of support or service can the campus offer you?
8. Do you think anything needs to change at Pineland? If so, how and why?
9. Has participating in this study changed your view of your college experience?

The protocol allowed for a pivot based on the nature of the interview's direction to achieve a deep level of participant reflection. Included were three additional probes in the protocol for use as needed; however, this was not an exhaustive list. A function of the pilot study's survey was to vet the interview questions by faculty inquiry partners for credibility and dependability as developed from other photovoice qualitative research studies (Eelderink, 2018; Latz & Mulvihill, 2017; Nykiforuk et al., 2011).

These questions were developed to coincide with the framework of the inquiry (see Table 8). The initial question asked participants why they decided to enroll to address their college-going trajectory. The second question was designed to make the participant feel comfortable in the interview and ask about what was happening in the image, followed by asking if the image depicts supports or hindrances to her experience. Next, the interview addressed research

Table 8

Interview Protocol Correlation to Conceptual Framework

Question Number	Question	Conceptual Framework
1	Why did you decide to enroll at Pineland currently?	Iloh
5	Can you tell me if your college opportunities have increased or decreased?	Iloh- time tenet
6	What do you think about the programs or services available here?	Acker
7	What type of support or service can the campus offer you?	Acker
8	Do you think anything needs to change at Pineland?	Acker and Iloh
9	Has participating in this study changed your view of your college experience?	Iloh- opportunity

questions three and four and asked what meaning the participant assigned to the image and what had the most significant impact on her success. Participants' perspectives of Pineland were used to identify whether the participant's college-going experiences were non-linear or unique and asked if she felt her college opportunities had increased or decreased over time, which was a tenet of time in Iloh's (2019) model. For possible interventions, questions referred to programming or services available at the institution and what type of support or service the campus could offer the participant. This was designed to assess the participant's perception through Acker's (1990) gendered organization theory by addressing if she considered programs inclusive or if alternate supports were needed. Additional questions sought to clarify what participants thought needs to change at Pineland and described if participating in the study changed her view of her college experience, which is tied to Acker and Iloh. A question about the component of opportunity in Iloh's model was addressed by asking if participating changed the perception of the college experience as opportunity centers on the personal beliefs and realities of the student.

Participants decided to share images during the interview, and I asked if they were comfortable with the display of those images in the exhibit. Finally, I sought permission to photograph the participants. After answering all questions from the interview protocol, I provided participants with an electronic copy of the transcript to review for accuracy. After the interview, participants were emailed selected images or, if they need clarification on the process, they could have texted photos or hand delivered them, whichever is more manageable, or they received assistance.

During the exhibition, the actions and interactions of the viewers was observed by a team of six inquiry partners: two work-study students, two LRC staff members, the art instructor, and

myself. Journals functioned as the observation protocol to record data based on the following instructions, anything of interest to the observer, viewer reactions, including positive and negative feedback and if any image garnered more or less attention than others. In addition, the observers noted nuances in audience non-verbal behavior by demographic group such as students (by population type), participants, college transfer faculty, CTE faculty, administration, Board of Trustees, community members, and staff. It was further documented if a specific viewer group had a reaction or interaction with any of the images and narratives. The behavior of any participants in attendance and that of other adult women learners was also recorded. The observation data was used to aid in the development of the intervention strategy. Photographs of the event were taken by the local photographer to document the event, but also to capture non-verbal behavior.

Data Collection

The data collection during Phase I provided the data needed in Phase II to create an effective intervention. Within two weeks of the inquiry's approval by IRB, data collection through the semi-structured photovoice interview process began by identifying potential participants who met the eligibility requirements. Potential participants were contacted through Watermark to schedule an interview at a time and location convenient to the participant on or off campus. The email contained information regarding the purpose of the inquiry and asked the participant's permission to participate in the study. Further, the email established that interviews occurred in a confidential setting that was comfortable or selected by the potential participant to establish a relaxed atmosphere, on or off campus (see Appendix I). It indicated that participants should bring their smartphones to the interview and suggested that participants reflect on what images they felt reflects supports or challenges to their college experience. If meeting in person

was not feasible for the participant due to a scheduling conflict, then a phone, videoconference via Teams, or text interview was offered. A reminder text and email were sent through Watermark to the participant's school and personal accounts restating the interview's time and place. Participants also were reminded to bring their smart phone.

At the appointed time, I met with the participant at the scheduled location and built rapport with the participant and asked general questions about their semester. The informed consent was given to the participant and reviewed, along with the purpose of the inquiry (see Appendix B). I clarified the information collected and the image's meaning, the population of the study, and the overall photovoice interview design. The exhibition of the photos at the end of the semester and its purpose was explained. It was ascertained whether the participant possessed a smartphone and was willing to share images of people, places, or things that facilitated or hindered their success at Pineland in their photo application or social media. Ownership of the images, invasion of privacy, and avoiding ethical issues was discussed, such as imagery that could have been embarrassing and providing names in captions (Sastre, 2021). Participants were informed that images of children and participants' faces could be blurred using software to ensure privacy.

Further, participants needed to inform faculty and classmates before the inquiry used the images in which they appear, and the subject of the image received a photo use consent form (see Appendix D). It was explained that participation was voluntary, and they faced no repercussions if they elected not to participate in the study at any time. Participants learned that they could have elected not to share images and that the interview protocol consisted of seven questions. The purpose of the audio recording by the Apple application and transcription of the interview

was explained. The participant was allowed to ask questions before the interview began. Once all questions were addressed, the participant signed the consent form.

The recording app was tested by asking the students for their names. The interview began by asking participants to self-select four photo images from their photo app or social media representing supports or hindrances they assigned the most meaning to about their college experience. They captioned the image for anonymous display to the campus stakeholders. If the participant selected more than four images, the directions to select the four most representative were given. Interviews used the questions created for the study while allowing for instrument elaboration (Creswell & Guetterman, 2019; Eelderink, 2018). Participants answered the open-ended questions from the interview protocol for each image. A copy of the interview protocol was available and placed on the table, in a chat, or verbally communicated before the interview commenced. To reduce any strain on participants if it is not feasible for the student to locate images during the interview, it was explained that an opportunity was provided to text or email images later or return post-interview. Reminder texts and emails were sent via Watermark to participants unable to successfully locate images during the interview.

The interview was recorded using Word's dictation feature, and the free voice memo app was used for verification of the transcription. Notes were taken of observations and to record critical moments from the interview or additional questions that may have occurred in case the audio recording failed. For face-to-face or videoconference interviews, I actively observed body language, non-verbal clues, and tonal inflections to document the interview protocol (Creswell & Creswell, 2018; Creswell & Guetterman, 2019; Eelderink, 2019). Documentation contained draft summaries of participant responses and keywords for each question. The observations, notes, and

additional questions were paired with the images and protocols for each participant and included in the data analysis.

Interviews occurred with seven to ten adult women learners from Pineland and took approximately 30 to 60 minutes to complete. Verification that she has all the contact information occurred, and she was thanked. Another opportunity for questions was afforded to the participant. A thank you message was sent through Watermark post-interview within one week. Participants verified the correctness of the transcription of the participant's perceptions of the strengths and hindrances of enrollment at Pineland. The images from the participants were summarized based on the instrument.

Data Analysis

The data collected was analyzed as it was collected to provide the inquiry partners with the information needed to make informed decisions regarding the design of the intervention (Creswell & Creswell, 2018). Inductive and iterative coding processes for emergent themes was used as results did not generalize to each learner and to prevent personal bias from impacting the inquiry (Creswell & Guetterman, 2019; Latz & Mulvihill, 2017; Saldaña, 2021). The sources of coding included transcripts, field notes, and images.

The process was multilayered, as it was a continuing cycle initiated as soon as the interview ended (Creswell & Guetterman, 2019). To develop a visual code model such as Wordle.net required using tags (Latz & Mulvihill, 2017; Saldaña, 2021). This process identified copious amounts of spontaneous codes, and the simultaneous coding cycle began by reading and viewing the data multiple times to become familiar with overarching concepts (Creswell & Creswell, 2018; Creswell & Guetterman, 2019; Saldaña, 2021). Color-coding by hand occurred to identify main concepts to gain an overall sense of participant responses, and similarities in

words, phrases, or sentences were labeled. Further, the responses were compared question by question across all transcripts for similarities by a color-coding format (Creswell & Creswell, 2018). The instruments used key concepts from the conceptual framework to aid in the coding process. Developing a visual code model such as Wordle.net requires using tags (Latz & Mulvihill, 2017; Saldaña, 2021). This process may identify copious amounts of spontaneous codes but presents the codes visually and limits bias from preconceived notions of the phenomenon.

The image coding used the reflective field notes that described the meaning assigned to an image by the participant, as well as a detailed description of the context, depiction, and actions within the image in comparison to participants' statements (Creswell & Guetterman, 2019; Latz & Mulvihill, 2017; Saldaña, 2021; Wang & Burris, 1994). Collaborative inquiry partners viewed, analyzed, reflected, and wrote journal entries regarding the images and the meaning assigned by the participants. These data were accumulated and coded through a code landscape technique.

The initial codes were divided by hand into segments and split into groupings of repeated phrases or concepts (Creswell & Guetterman, 2019; Saldaña, 2021). Identifying and clumping original concepts and quotes removed redundancy and supported the codes until no new data emerged (Latz & Mulvihill, 2017; Saldaña, 2021). Central categories and descriptions were compiled from the code lists and through supporting details across multiple data documents to establish connections. From each category, a larger framework of themes emerged.

Exhibition to Stakeholders

Using the Canva template, images and the corresponding narrative were combined on a 24x36 inch poster. Posters were printed and framed in poster frames without matting using a

local vendor. The use of Canva permitted the sharing of the findings in a digital or physical format to inquiry partners and at other community colleges or conferences in the future. A two-hour reception was held the first night of the exhibit, which ran for two weeks. The reception consisted of water and store-bought cookies that I purchased using personal funds.

Invited stakeholders were the Board of Trustees, the Foundation Board, and campus members, including the leadership team, administration, faculty, students from both curriculum and continuing education from all population groups, staff, and participants and their families and friends. The participants were not identified to any stakeholder present. Observers recorded the actions and interactions of the viewers. Participants' comments and reactions to having their words and images viewed were documented. After the reception, the observers were debriefed and asked to share their personal observations, reflections, and journal entries. Participants in attendance were given an opportunity to explore the effects of sharing their perspectives with stakeholders. Field notes were written following the exhibit's reception, including a detailed description of the space's layout, locations of the images, and objects within the space that were not part of the exhibit to provide thick description (Geertz, 1973).

The inquiry aimed to design, implement, and assess an intervention program to increase the persistence of adult women learners in gateway and general education science courses at Pineland. The display empowered self-advocacy and articulated needs while generating a shared dialogue. The observed interactions of viewers and participants' reflections provided thick description, which was used during the shared dialogue with inquiry partners during the development of the intervention strategy in Phase II.

Summary of Phase I

Phase I functioned to answer the first research question (What do adult women learners perceive as supports and hindrances to their college experience in gateway and general education science courses?). It entailed participant recruitment, photovoice semi-structured interview instruments, data collection, data analysis, observations, and field notes.

Phase II

Phase II included designing and implementing an intervention strategy to increase the persistence of adult women learners in gateway and general education science courses. The purpose of Phase II was to address the second research question, which asked, (What intervention(s) can be implemented to increase persistence and the college-going trajectory of adult women learners in gateway and required science courses?) The following subsections include information about the intervention design process and implementation. The input of inquiry partners was sought regarding the analysis and design of the intervention and the implementation process based on the data and analysis from Phase I.

Inquiry Intervention Design Process

The purpose was to design the intervention strategy grounded in data collected in Phase I. Once the data from Phase II were analyzed, the analysis was shared with inquiry partners for input before designing the intervention strategy. Faculty members were sought through email and phone to schedule individual and small group meetings at the discretion of the faculty members. This group included college transfer faculty, gateway course instructors, and CTE faculty. The intention was to recruit faculty from nursing, English, communications, psychology, education, and art. Additionally, recruitment of significant campus stakeholders occurred through email or phone, including the Vice President of Academic Affairs and Student Services,

the Special Populations Coordinator, and the QEP Team. A collaborative team approach shared data to gather feedback from the context's cultural experts.

Meaningful conversations occurred individually or in small division groups. Each meeting was documented (Creswell & Creswell, 2018). The time required for each discussion varied depending on the inquiry partners present and their relationship with students; therefore, I scheduled at least an hour. These conversations reflected the shared themes and images from the exhibition to ascertain any residual impressions on the viewers. Suggestions of interventions to increase persistence based on the supports and hindrances identified by the participants were sought. Suggested interventions were examined and incorporated into the design of the intervention strategy. They included a professional development webinar using the images and narratives from Phase I. The webinar format could have been recorded and shared with other community colleges across the state and during conferences. Other options included having a briefing before the first semester of enrollment, an adult lounge, child-friendly spaces on campus, retention coaching, study groups, or an adult advising model. The administration's support of the intervention was sought, and discussions entailed any possible cost to the institution.

Implementing the Intervention

After allowing for collaboration and analysis, the intervention implementation began. The library assistant played a pivotal role during the implementation by garnering support and buy-in from curriculum faculty. The resources needed for the implementation depended on what strategy ultimately met the needs of the adult women learners within the confines of the institution's ability. Possible interventions included professional development, study groups, success coaches, child-friendly spaces, stress management, and counseling available on campus.

Creating programming, such as visible clubs like single parents or parents and me-time activities, was viable.

Summary of Phase II

Phase II aimed to answer the second research question (What intervention(s) can be implemented to increase the persistence of adult women learners in gateway and required science courses?). The intervention design process and implementation focused on positively impacting student success based on data from the photovoice study and occurred in the Summer of 2024.

Phase III

Phase III aimed to answer the third research question (What are the effects of a customized intervention designed to increase the persistence of adult women learners in gateway and general education science courses?) by analyzing the intervention strategy. The following subsections detail the instrumentation, the data collection procedures, and the data analysis strategies used to determine the effects of the intervention.

Instrumentation

The intervention was examined to address the third research question. A shared dialogue was held with faculty inquiry partners and leadership to explore the effects of the intervention on the inquiry partners. Following the implementation of the intervention, individual meetings were held with the same inquiry partners used from before the design of the intervention. The focus was on CTE and gateway instructors who have relationships with the population. During the meetings, inquiry partners were asked to discuss whether and how their perspectives or practices changed as a result of having participated in the intervention. A record of any meetings with inquiry partners was created.

A piece of secondary data collected by the institution provided additional data for analysis from the Fall 2024 term (Creswell & Creswell, 2018). The report included the rate of student success and non-success for the adult women learners and other learner populations. All data were limited to information from the seven gateway and general education science courses included in this study. No learner names or ID numbers were included to protect student anonymity. These data contained learners' demographics, including gender and age.

Data Collection

An email was sent to inquiry partners to schedule conversations to discuss the effects of the intervention on their perspectives and practices, including an assessment of the long-term value of the intervention for their students. These meetings were held individually through shared dialogue and transcribed. Observations were made based on the level of buy-in to the intervention from the campus community, including students, faculty, staff, and administration. Additional data gathered through inquiry partner discussions included the ease or difficulty of the implementation of the intervention, the sustainability of the intervention, and the institution's response to the implementation. The data were shared during an academic affairs meeting with members from various offices and divisions on campus. Secondary data used in the evaluation process were collected from the Dean of Student Services by email. The data included the success rates of all learner populations for the seven gateway and general education science courses for the Fall 2024 semester. The data were subsequently disseminated to inquiry partners.

Data Analysis

The evaluation compared the success rates of adult women learners in gateway and general education science courses being re-evaluated and assessed with the baseline data. The data analysis provided insights into the impact of the intervention on increasing adult women

learners' persistence at Pineland. The data analysis identified the intervention's impact on adult women learners' persistence in gateway and general education science courses. Initially, averages for the D/W/F rates for the Fall 2024 semester for adult women learners in the seven gateway and general education science courses were calculated. Withdrawal data were used to determine whether the adult women learners' persistence decreased or increased post-intervention, and by what percentage. Comparisons of failure rates to the baseline data were made (see Table 1). The process was repeated for the traditional and dual-enrolled populations by statistically calculating the average D/W/F rates. Comparisons were made between baseline data to evaluate whether the intervention impacted these learner groups' success, persistence, or failure percentages. Impressions and feedback from stakeholder responses were documented for use in future recommendations. This aided in determining the sustainability of the intervention.

Summary of Phase III

Phase III sought to answer the research question (What are the effects of a customized intervention to increase the persistence of adult women learners in gateway and general education science courses?) by implementing the intervention strategy, collecting and analyzing D/W/F data, and comparing those data with the baseline data. By voicing and addressing the issues the participants experienced, I hoped the adult women learner population experienced a decrease in the withdrawal rate in gateway and general education science courses.

Inquiry Design Rigor

A triangulation strategy was employed throughout this inquiry to ensure rigor. The observations, analysis, and interviews provided an understanding of the phenomenon impacting adult women learners' persistence, allowing for validity in data collection (Creswell & Creswell, 2018). The processes included member checking within two weeks of the interview collection

process in Phase I, as the participants reviewed a summary of their interview transcripts and images to ensure the accuracy of the data and to reflect how participants saw themselves (Nykiforuk et al., 2011). A photovoice interview inquiry was intentionally selected, as it uses thick descriptions when participants discuss personal images during the interview, consisting of open-ended questions and wait times (Eelderink, 2019; Sastre, 2021). Participant images reflected rich data in the format of behaviors, intentions, events, or situations. To prevent bias in the data, I engaged in triangulation through many data sources, including interview observation, image analysis, and researcher journaling (Eelderink, 2018).

Participants for this inquiry were Pineland students who identify as adult women learners in a curriculum program excluding college transfer who attempted, completed, or were enrolled in a gateway or general education course. The purpose of this qualitative participatory action study was to design, implement, and assess an intervention program to increase the persistence of adult women learners in gateway and general education science courses at Pineland. The results of the intervention might not translate to the broader non-traditional learner at Pineland; however, they might be transferable to other community colleges and might have caused them to reinvest in adult women learners' success. Further, all participants in this study were in a curriculum program, excluding college transfer, which might prevent the correlation of the findings to learners within the college transfer program.

Delimitations, Limitations, and Assumptions

Delimitations included issues beyond the scope of the focus of practice, as eligible participants did not include adult learners identifying as men or those under the age of 24 or over the age of 46 who meet the life experience criteria of non-traditional learners or employees or their children. Also, as this was a voluntary research design, there was concern that the

participants would not have accurately represented the diverse nature of the adult women learner population, as only some elected to participate (Nykiforuk et al., 2011). Although attempts were made to include a variety of students from different races, ethnicities, and socioeconomic statuses, this was not possible due to the size of the population. Efforts were made to prorate the participant group to reflect the adult women learners' population by program of study (for example, 50% from health care).

Limitations of the study imposed by the research method were that the inquiry might not have gotten participants willing to take or share personal images (Latz & Mulvihill, 2017). Creswell and Guetterman (2019) suggested notable limitations might apply to audiovisual research, as participants might feel compelled to capture specific images if they were aware of the prompt which might have skewed the data. These depictions of the phenomenon might not have reflected the inquiry, as opposed to participants who acted honestly in their responses. A preventative measure was to not provide image ideas in the photoguide, which would have been unethical. Photovoice by design assumes that decision-makers exposed to the identified social justice issue effects change; however, there was no guarantee of a transformation occurring beyond raising awareness (Cornell et al., 2022; Moletsane, 2022; Sastre, 2021; Wang & Burris, 1994). A further limitation of the design was analyzing the rich information with the elements of all the images; however, the inquiry partners with expertise in this field provided needed assistance. The number of pictures for the inquiry was limited to counteract this limitation. Also, all captions and meanings of the pictures were ascertained from the participants rather than the inquiry partners or observation to prevent subjective bias (Creswell & Guetterman, 2019; Latz & Mulvihill, 2017; Nykiforuk et al., 2011; Sastre, 2021; Wand & Burris, 1994).

The self-reporting aspect of the semi-structured interviews in Phase I further limited the inquiry as the participants might have chosen to answer in a manner influenced by social desirability, and my presence might have influenced participants' answers (Roessger et al., 2019; University of Kansas, 2023). Maintaining a separation between the participants' stories and my own and removing my assumptions and biases during the interview achieved confirmability. The collected image data supplemented the semi-structured interviews by providing participants with a focus point. The interview protocol did not control qualitative interviews; therefore, the images could have caused a shift in the questions (Creswell & Guetterman, 2019).

It was assumed that all participants in the inquiry were voluntary, and the sample size was large enough to provide appropriate data to analyze. During the inquiry, participants were assumed to respond honestly to the interviews and provide valid responses. Further, it was necessary to assume the participants took all photographs for the study and self-selected the four photos presented during the interview as most reflective of their college experience. The limitations inherent in qualitative research of focusing on a specific context prevent generalizability to community colleges located in urban settings or with large populations of adult women learners; however, the results of the intervention might be applicable to other community colleges with the same demographic composition (Creswell & Creswell, 2018).

As a scholarly practitioner, I acquired permission from the administration to support the investigation to prevent my biases from impacting the inquiry. I assured participants that all interview data were kept confidential, and names were not associated with the images. Participants were assured they could withdraw from the inquiry without recrimination.

Practitioner Positionality

As an employed woman, student-mother, and survivor of intimate partner violence while pursuing higher education, I have insight into some adult women learners' difficulties. I am a white, middle-aged, heterosexual, cisgender woman, adult learner, and student-mother. While employed at Pineland, I further admit I have no experience as a community college student or instructor, and this might have affected the results of the inquiry as I lack knowledge of the community college experience and knowledge of the manner in which courses are conducted and scheduled. While the study focused on the experience of adult women learners, I do not devalue the experiences of other learner populations. For an adult women learner to have success in higher education, a careful balancing act, grit, and internal drive are required to persist to completion. Access to and knowledge of supportive resources during my education would have positively impacted me.

Role of the Scholarly Practitioner

I conducted the inquiry and intervention as an adult woman learner and scholarly practitioner. I acknowledge that this topic has personal significance to me because I have first-hand knowledge of the burdens imposed on my education that resulted from biases towards my gender and family struggles that are unique to student mothers and adult women learners. I have been in five programs of study as an adult learner and stopped out once due to pregnancy and another time due to a conflict between my role of student and mother. Further, my involvement impacted the inquiry as I affected stakeholder support. I began at Pineland as the Learning Resource Director in 2019. While I did not work with students as a faculty member, my role included academic success, tutoring, and providing access to technology. As the tutoring director, I partnered with an external virtual tutoring platform post-pandemic that focused on

non-traditional and first-generation students to increase student support. Consequently, I discovered that gateway academics and a lack of access to technology were problems for adult women learners.

I have first-hand knowledge of the burdens imposed on my education from biases unique to my identity as an adult woman learner. I lack an understanding of being a community college student. Perhaps community college adult women face simultaneous marginalization, or a dichotomy imposed by ageism, leading to selecting this topic as my focus of practice.

Conducting the inquiry at my place of employment provided a window to watch the inquiry process and potential changes. The research design included individual interviews with participants, which required large quantities of time; thus, I needed to prevent impacts on the data through relationships that may have developed. I do not supervise or have any authority over the adult women population to influence their participation decisions.

To mitigate personal bias, any personal experiences shared with participants to build rapport during the interviews were not included in the coding process. I employed the strategy of member checking and participant feedback (Creswell & Creswell, 2018). Moreover, a reflective journal in the form of memos was used to record any preconceived notions of the participants and the findings. Despite the personal significance of the topic, it was necessary to report all data collected without imposing my beliefs, biases, and preconceived notions. I attempted an objective approach, and I refrained from assuming the inquiry did improve persistence rates.

Summary

The purpose of the qualitative participatory action inquiry was to design, implement, and evaluate an intervention strategy to increase the persistence of adult women learners in gateway and general education science courses at Pineland. The inquiry's significance is to inform rural

community colleges of impactful methods that might increase adult women learners' persistence in gateway and general science courses.

Information to conduct and duplicate the inquiry was outlined in Chapter 3. Chapter 3 included the inquiry rationale, the methodology's appropriateness, and the context of the study. Also, the inquiry partners were discussed and described along with ethical considerations. Baseline data collection generated the idea for the research, and a pilot study was conducted in Phase I and incorporated into the resultant alterations to the instrumentation. The photovoice interview design selection with a step-by-step review of the data collection procedures and analysis techniques was detailed. The design process and evaluation of the intervention and its impact was outlined. Further, an assessment of inquiry rigor, delimitations, limitations, and assumptions were identified, followed by practitioner positionality and the role of the scholarly practitioner.

CHAPTER 4: QUALITATIVE RESULTS

In this chapter, I review the study's purpose and methodology. It includes an overview of participant recruitment, profiles, and the structure of the interviews used for data collection, along with any modifications made to the interview protocol. Additionally, this chapter identifies and analyzes three key themes that emerged from the study, which align with the research questions.

This study was conducted at a small rural community college in the southeastern region of North Carolina. Pineland offers 53 associate and terminal degree programs, with a significant number of part-time students. The Fall 2024 enrollment was approximately 1,700 students. The purpose of this qualitative participatory action research study was to design, implement, and evaluate an intervention strategy to increase the persistence of adult women learners in gateway and general education science courses at Pineland.

FoP Research Questions

This chapter presents the study's findings through the analysis of the data collected to answer the following focus of practice questions:

1. What do adult women learners perceive as supports and hindrances in their college-going trajectory in gateway and general education science courses?
2. What intervention(s) can be implemented to increase the persistence of adult women learners in gateway and general education science courses?
3. What are the effects of a customized intervention designed to increase the persistence of adult women learners in gateway and general education science courses?

Research Design

The study was conducted using a three-phase research design. The research questions steered the study, and I conducted individual semi-structured photovoice interviews and collected images from participants. The purpose was to explore participant perceptions of supports and hindrances in their college-going trajectory in gateway and general education science courses.

The interview data were emailed to the individual participants for review and verification of the accuracy of the transcription regarding their strengths and challenges at Pineland. After verification, I developed 17 posters featuring selected quotes and images from the participants. The photovoice exhibition was also held in the LRC, where faculty, staff, and students viewed the posters. Poster content is presented in this chapter (see Appendix L). I facilitated discussions with inquiry partners to design a customized intervention with the purpose of increasing the persistence of adult women learners in gateway and general education courses, which I explore in a subsequent section. I evaluated the intervention's effects by reviewing secondary data and meeting with the inquiry partners.

Participant Selection

On December 4, 2023, I received IRB approval to begin the study and recruit participants. Recruitment occurred through referrals from the nursing department chair, who identified potential candidates meeting the inquiry's eligibility criteria. In addition, I engaged in conversations with students during a late registration event, leveraging previously established relationships, which resulted in two participants. To identify adult women learners enrolled in Spring 2024, I created a filter in Watermark, generating a list of 598 potential participants. This filter was refined to focus on students in the pre-nursing program, as it represented the primary

pathway for adult women learners at Pineland. From this list, I excluded students who had not enrolled in, attempted, or completed gateway or required science courses at Pineland, leaving 42 eligible participants. I contacted these candidates via email with the subject line, “Can you help Pineland’s librarian?” and attached a flyer, which led to five additional participants (see Appendix K).

For this participatory action inquiry, the sample included seven adult women learners, aged 25 to 44, currently enrolled in a CTE pathway at Pineland. To be eligible for the study, participants had to be enrolled during the Spring 2024 term and had to have previously attempted or completed a gateway or general education science course, as confirmed through Watermark. Learners in college transfer programs, male students, dual-enrolled students, traditional-aged students, and faculty, staff, employees, spouses, and their children were excluded. Participant eligibility was verified through Watermark. Table 9 provides details on each participant’s age, program, and race or ethnicity. Among the seven participants, 71.4% were in healthcare programs, with 42.8% specifically in pre-nursing or nurse aide programs. This distribution closely mirrors the adult women learners’ population at Pineland, where 51.6% are in health sciences. Of the seven participants, one self-identified as continuously enrolled, while 71.4% reported a previous stop out, with one participant having stopped out three times, one transferring and stopping out three times, and one identifying as a transfer student (see Table 10).

Participant Profiles

Emily

Emily, a 27-year-old White woman, is married and enrolled full-time in the nurse aide program. She completed 75% of her courses through online education, while attending Chemistry 092 face-to-face. She works part-time at the local Walgreens and cleans houses with

Table 9

Age, Program, Race or Ethnicity

Alias	Age	Program	Race or Ethnicity
Emily	27	Nurse Aide	White
Erin	25	Nurse Aide	Black
Marbella	29	Practical Nursing	Hispanic
Meggie	33	Nurse Aide	White
Pamela	30	Medical Office Administration	Hispanic
Tayaka	40	Human Services	Black
Yolanda	42	Assoc. Nursing	Hispanic

Table 10

Work Commitments, Course Load in Spring 2024, Student Type

	Frequency	Percent
Work Commitments		
No Employment	0	0%
1-35 total hours	5	71.4%
36+ total hours	2	28.5%
Course Load in Spring 2024		
Overload (19+ credit hours)	1	14.3%
Full-time (12+ credit hours)	3	42.8%
Full-time nursing (10 credit hours)	2	28.5%
Three-quarter (9-11 credit hours)	0	0%
Half-time (6-8 credit hours)	0	0%
Below half-time (1-5 credit hours)	1	14.3%
Distance Learner or Traditional		
Hybrid	1	14.3%
75% Distance Learner	2	28.5%
100% Distance Learner	2	28.5%
100% Face-to-face	2	28.5%
Student Type		
Continuous enrollment	1	14.3%
Stop out	3	42.8%
3 previous stop outs	1	14.3%
Transfer and 3 previous stop outs	1	14.3%
Transfer	1	14.3%
Parent		
No children	2	28.5%
1-2 children	1	14.3%
3-4 children	3	42.8%
5+ children	1	14.3%

her sister. Previously, she enrolled in business management but took a break. Emily is actively involved in her church, in her family, and in the lives of her nieces and nephew.

Erin

Erin, a 25-year-old Black woman, is in a long-term relationship and works part-time while studying. She is enrolled as a part-time student in the nurse aide program and is taking a three-credit hybrid course. Erin transferred to Pineland after stopping out three times from the nurse aide program. Previously, she earned an Associate's degree in early childhood education from another institution and was employed in the field before leaving to pursue nursing.

Marbella

Marbella, a 29-year-old Hispanic woman, is married with 3 young children. She is enrolled full-time in the practical nursing program and works part-time. Marbella attends all her courses on campus. Her husband works for the local sheriff's office on a monthly swing-shift rotation, which makes it challenging for him to assist with the daily childcare. Marbella attended and stopped out of Pineland's nursing program during her first semester. She previously earned an Associate of Arts degree from another institution.

Meggie

Meggie, a 33-year-old White woman, is engaged and a mother of three children. She is enrolled full-time in the nurse aide program and works full-time. She completed 75% of her courses through distance learning, attending Chemistry 092 in-person. To accommodate her class schedule, her employer allowed her to leave work for class and make up the time afterward. Previously, she attended and stopped out of Pineland's nursing program due to her three-year old son's Autism diagnosis. Her decision to enroll in the local college was influenced by her

employment, the needs of her two pre-teen daughters, and the desire to be near her son's specialized daycare.

Pamela

Pamela, a 30-year-old Hispanic woman, is a married mother of two sons. She is enrolled full-time in an online medical office administration program and works full-time. Although married, her husband is currently not present in the home. Pamela has attended all her courses through distance learning. In her second year, she secured full-time employment and earned work-based learning credits to facilitate on-time graduation. Pamela manages to complete some assignments during her full-time job at a doctor's office. At the time of the study, she was in her last semester before graduation, and her advisor encouraged her to enroll in 18 credit hours.

Tayaka

Tayaka, a 40-year-old Black woman, is a single mother of five. She is studying human services technology through online courses while working part-time. Her typical day involves taking her youngest child to school, doing homework in her kitchen, and then working from 1:00 pm to 9:00 pm. On Fridays, Tayaka goes to campus to complete work in the library and meet with her advisor and instructors. She has stopped out three times and is taking all her courses through distance learning. Recently, Tayaka ended a relationship that involved intimate partner violence, and her youngest son has been acting out in daycare. Tayaka expressed feeling under significant pressure due to her challenging home situation.

Yolanda

Yolanda a 42-year-old Hispanic woman, is married and a mother of three daughters. She is enrolled full-time in the traditional Associate Degree Nursing program and works part-time. An immigrant, Yolanda had no formal education before enrolling in Pineland's ESL program.

After graduating from Pineland's GED program, she secured full-time employment. When she began pursuing her ADN, she took her prerequisites and gateway courses individually until being admitted into the Nursing program, which requires full-time, in-person enrollment. Upon admission, she left her full-time job but initially stopped out of the nursing program after her first semester. During the study, Yolanda was enrolled for her final semester before graduation.

Qualitative Data Collection

The interviews began on January 11, 2024, continuing through February 24, 2024. I conducted five of the interviews in my office in the LRC at a time of the participant's choosing and two interviews via Teams at the participants' request. I conducted the interviews in a one-on-one semi-structured format lasting 15 to 90 minutes. During each interview, I collected artifacts, including student digital images. Each participant received, reviewed, and signed the informed consent. To establish an accurate record in case of technical failure, I recorded the interviews using both the Word voice dictation feature, which transcribed the interview in real time, and the Apple VoiceMemos app. Participants were informed about – and consented to – the recording prior to the interviews. I assured participants that their involvement was voluntary and that they could withdraw from the study at any time. I informed participants of the purpose of the study. Rapport was established through general questions, and I explained the photovoice method and shared that an exhibition of the images would occur at a future date. I communicated that all participants had the option to select a pseudonym to maintain anonymity.

Before every interview, I asked participants to text no more than four self-selected images along with a brief description to initiate discussion. The images acted as a focal point for the participants, and I used them as a tool to elicit reflections of the participants' perception of supports and challenges to their college journey. To protect anonymity and ensure

confidentiality, I informed participants that they had the option to have faces blurred by computer software. I verified that they had personally taken the images submitted and confirmed their understanding and consent that the images might be published. One participant, Yolanda, provided an image taken by her daughter on Yolanda's phone while she was asleep and unaware of being photographed. I briefed Yolanda on the use of the image in the study, including the potential for publication, and she consented to its inclusion.

The interview protocol allowed for flexibility in the interview process based on the flow of the interview to achieve a deeper level of participant reflection and to enhance clarity and depth. Participants initially hesitated to share personal details during the interview process but became more open toward the last question; therefore, I revised the interview guide to establish rapport earlier in the interview as a means of encouraging participants to describe their daily activities and to obtain richer, fuller data (see Appendix J). On January 26, 2024, I reworded and added questions that aligned with the inquiry's framework, such as: "Can you tell me about yourself and what a normal day looks like for you?" and "Tell me about your college experience." I also asked if they would be willing to meet again if additional details were needed. These revisions led to more detailed responses with less probing. The first interviewee returned for a follow-up interview with the updated questions. Once a participant texted all images and completed the interview, I emailed or texted a \$25 Amazon gift card. I reviewed the recording and dictation of each interview and created a word-for-word transcription. To ensure the transcription reflected the participant's meaning, I emailed each participant a copy within a two-week timeframe.

Data Analysis

Analysis of Research Question #1

The first research question asked, What do adult women learners perceive as supports and hindrances in their college-going trajectory in gateway and general education science courses? Responses from the semi-structured interviews provided information about the participants' perceptions of their college experiences and what supported or hindered their persistence.

Field notes were recorded immediately following each interview to document the overall context, key moments, concrete observations of non-verbal behaviors and feelings, and connections to the theory. In addition, reflective memos logged beneficial aspects of the interviews, areas of difficulty, possible adaptations of the interview protocol, questions I had, participant quotes, and connections to the literature. The memos reflected how the probing process was refined to include follow-up interviews in person or by text and the necessity of participants sharing photographs and descriptions of the images prior to the interview.

The coding process was multilayered, and I used an active and continuous cycle that began at the conclusion of each interview. I reflected while reading and transcribing each interview and identified copious amounts of spontaneous codes by discovering recurrent and similar key phrases and words, identified and highlighted initial code patterns and phrases, and irregularities among the interviews. Specific initial codes from the open coding of data regarding each participant's perception of their college journey emerged, and the recurrent words and phrases included *mom guilt*, *stop out*, *oldest in class*, *caring faculty*, *local college*, *employer support*, *increased confidence*, and *sense of pride*. Through an iterative process (and in a manner consistent with Saldaña, 2021), I compared the codes, refined core categories, and six patterns emerged that I compiled into a table to illustrate how codes were grouped to determine three

themes (see Table 11). The excerpts were minimally edited for verbal fillers and grammatical errors to ease readability without altering the participants' viewpoints. The language was left intact when such editing would change the participant's meaning.

Theme 1: Adult women learners often experience difficulty balancing educational pathways and life responsibilities.

Throughout the interview process, participants frequently mentioned difficulties balancing educational pursuits with work, family duties, and other commitments. Codes reflected motherhood and mom guilt, caretaking for family, time management, and stopping out for non-educational reasons. Participants also referenced the occurrence of life changing events during schooling that led to stopping out. Two participants discussed finding time to study around employment as a challenge and sacrificed their full-time jobs for their education. Yolanda said,

Before, I wasn't able to be a full-time student, so I took one class at a time, because I am a mother, and I had to work. Nursing is not a choice; you must be full-time, with 12-hour shifts for my clinicals, so I left a secure job with benefits to start nursing.

Erin worked full time as a middle school teacher's assistant and needed to fit college around her schedule; therefore, she enrolled in online classes at a community college. Online classes were a challenge for Erin, and she observed,

You have to be very self-disciplined and read the material and understand it yourself and teach yourself. I wasn't passing online anatomy; I just can't take online classes. I transferred to Pineland because you offer anatomy in person, but only during the day, which conflicted with my work schedule. So, I felt I had to quit my job.

Table 11

Qualitative Data Codes and Themes

Codes	Patterns	Theme
Time management Motherhood Mom guilt Employment Late nights Stop out Language Barrier Oldest in class Feelings of embarrassment Sit in front	Struggle to Balance Alternate Trajectory Impact of Age	Adult women learners often experience difficulty balancing educational pathways and life responsibilities.
Advisor Library Tutoring Daycare program Caring Faculty Family Local College Campus family Success Coach Employer Support	Institutional Supports Personal Supports	Institutional and personal support systems increase the persistence and success of adult women learners.
Inspiration Self-reflection Sense of pride Desire to inspire Encouraged Game Plan	Self-realization Increased Confidence	Adult women learners benefit from sharing their educational journeys and personal growth.

Emily noted, “I’m a full-time student; I work part-time and clean houses on the side. It’s a struggle.”

Difficulties balancing the roles of student with parent or caretaker caused five of the seven participants to stop out. Three participants stopped out during their first year of enrollment, two because they became a mother for the first time, and another to care for a parent. When asked to share her college experience, Marbella explained, “My mother was diagnosed with breast cancer, so I kind of put school to the side. And then I had my babies and got married.” Tayaka said, “I was young and having children, and I didn’t have a big support system. I had some personal stuff that made school hard. I had to manage my family, so I dropped out.” Emily struggled her first semester as she cared for her husband, and when asked about her college experience, she said, “Being an adult, you have other duties. I’m very active with family and church. I couldn’t focus and was behind at the beginning because my husband was in the hospital. It becomes a lot trying to catch up on.” Many of the participants study late at night when their families are asleep. Meggie stated,

My son is three years old and was diagnosed with Autism last year, so balancing is definitely a challenge for me. I prefer online classes because your schedule can be so hectic, and online lets you work around it. One thing I love is that you can really get ahead if you want to. Once I get everybody else situated but myself, I stay up till about 12:00 in the morning. And then I play repeat.

When asked about her day, Tayaka remarked,

I’m up by 6:00 a.m. to get the baby ready and to daycare by 7:00. I work afternoons and nights at the convenience store. If I can stay awake after everyone’s gone to bed, I study. I have so much going on. My biggest problem is time management.

Yolanda studied after work and after her children went to bed. She revealed, “I work on paperwork until 2:00 or 3:00 a.m. and arrive in the clinical setting by 7:00 a.m. for a 12-hour shift. Many times, I go into the bathroom during clinicals and cry. It was just so hard.”

Mom guilt was indicated as a stressor by all five mothers. Tayaka stated, “My youngest was acting out at school, and my family needs my attention. I’m trying to be a mom, but I know I can be so much more.” Marbella observed, “Sometimes I separate away from my family to study and really focus. I wish I didn’t have to.” When asked if school affected her family, Yolanda recalled,

I told my girls before I even started school, “It’s going to be very difficult for me, and it’s going to be difficult for you.” I knew I would have to miss all the sports and school recognitions. I have to see them as pictures somebody else sends to me. It really hurts.

Pamela shared a similar feeling about changes to her family’s routine:

The kids are outside, and I’m on the laptop. I feel guilty I’m not spending as much time with my kids. But I feel like, the oldest started to understand that I’m doing something great. I’m still making time to be a mom. It’s not as much time, but it’s going to be worth it at the end. Even though my children only have me, they’re seeing a strong mom.

The women shared ways their families have adapted to the changes in their lives and how it makes them feel. Yolanda tries to put her children first as often as possible: “I go pick up my girls and help them with homework when I haven’t finished mine. It’s about choice. It’s hard to find time for everything.” Pamela shared,

My son sees me doing my schoolwork, and he says he’s hungry, “But never mind mom, I’ll make a sandwich.” And I think, when did you grow up? But thank you for growing up and helping. It’s like a sad but happy moment at the same time.

Finding time to balance education with their other life responsibilities proved difficult for all seven of the participants. Often this theme led to a discussion of how a lack of balance caused previous stop outs and how the women were overcoming this obstacle, which led to the emergence of the second theme regarding support systems.

Theme 2: Institutional and personal support systems increase the persistence and success of adult women learners.

Consistently throughout the interview process, participants indicated the importance of institutional and personal support systems to persistence and success. All participants highlighted caring advisors and faculty, financial aid, and related institutional services like the childcare assistance program, food pantry, and tutoring. Participants noted that personal support systems included family members and employers that accommodate work schedules around class time.

Several participants mentioned caring faculty and advisors as an institutional support. Faculty support was highlighted by Pamela, who said,

I only come on campus for registration, but my advisor is always available. Giving me encouraging words, telling me, “You could do more classes.” She encouraged me to enroll in five online classes and work-based learning, so I have 18 credits total. That’s how many I needed to graduate. She’s been there to encourage me throughout my journey.

Meggie focused on the accessibility of faculty and staff:

This place offers so much, like advisors, counselors, and success coaches, so if something is going on, there is someone to talk to and give you guidance. It’s a tight knit group with one-on-one help. It’s easier to talk to a person compared to a big university, so you actually get help. In chemistry, that one-on-one is important.

Yolanda has been a student at Pineland in the ESL, GED, and now ADN program. She shared, “This place has been my second home for seven years. It is a family college, and they care about us and the community.”

Five participants said that financial aid was a great benefit and that they only enrolled full-time to qualify for it. Emily said, “I can’t afford to pay for my education, and financial aid only applies if I’m full-time. So, I’m taking three online classes and chemistry in person.” Previous stop outs or income levels prevented some from receiving aid. Yolanda stated that even though nursing is full-time, she did not qualify for financial aid until her last semester. She noted, “I had a job, my husband had a job, and we earned too much. I finally got aid this last semester, but I’m happy to have it.”

Externally, employers were listed as a support system when they adjust students’ schedules for classes. When asked about supports to her college experience, Emily shared, “Walgreens adjusted my schedule around my chemistry class on campus and gave me time to study for my online courses.” Meggie was also enrolled full-time and employed full-time as a maintenance worker at Hog Slat and depended on the support of her employer to adjust her work schedule. She explained, “I come to work for six hours and leave to go to class and as soon as I get out, I come back to finish up my work hours. They want me to be successful.”

Family support systems were also indicated as important to persistence by participants. One source of support noted by participants was family members who assist with childcare. Marbella explained, “My mother-in-law gets my oldest off the bus on clinical days. Because my husband works 12-hour shifts, it is a huge help.” Meggie stated, “My mother picks my son up from daycare so I can make-up work hours after chemistry. I’m lucky to have her support.” Having a person offer emotional support was valuable, according to study participants. For

example, Marbella noted, “Sometimes I walk around saying I’m going to fail, and my husband tells me to stop doubting yourself, you’re smart. And when I pass, he says, ‘See, you’ve got this.’ He is my biggest supporter.” Meggie and Tayaka both discussed their dependence on their older daughters to help with their younger children, with Tayaka offering, “I count on my oldest girls to help out with the baby when I’m working at night. We help each other. I couldn’t do this without them.”

To persist, adult women learners depend on academic and emotional supports that are provided through institutional and personal support systems. This theme appeared frequently during the interviews and led to the final unanticipated theme, that the women wanted to inspire and be a support system to other women and their families.

Theme 3: Adult women learners benefit from sharing their educational journeys and personal growth.

The participants felt that sharing their education journey through photovoice allowed them to reflect on their past accomplishments and inspire others. Sharing their college journey verbally and through the photovoice experience increased the self-awareness and confidence of five of the participants as they perceived personal growth and reflected on what they accomplished in a day’s time. When asked whether participating in the study changed their view of their college experience, Emily expressed that she never considered what she did in a day until she said it aloud:

This opened my eyes to exactly what I do every day instead of just doing it. You get stuck in the rut of your routine and don’t see what all you do. This made me feel good about myself and reminded me of what I can do. It feels good.

When asked which picture was the most meaningful to their college journey, most participants shared their first day of clinical selfie, or the day they received their CNA certification. Emily explained, “I was eager and excited to go to clinicals and do hands-on and physically learn how to do everything that we had been taught in class. It was an exciting day. Looking at my pictures made me feel good about myself.” Marbella shared a photo of herself in scrubs, noting,

I was proud of myself because I was accomplishing a lot, passing my exams, and helping classmates study. It is so different than how I felt when I started. When I applied, I didn’t think I could make it. I took the entrance exam three times and was always a point or two away. I put myself down and was in a dark place, like I’d almost given up, so, yeah, this makes me proud. Just being a mom of three and working, it was a lot, but this picture shows I can do it. I felt really good about myself.

Erin selected her selfie in scrubs as a support and said, “I got through my CNA certification. It was very hard, but I did it, I accomplished it. The picture makes me feel proud.”

Participants felt the study provided an effective outlet to inspire others to pursue school, and when asked why she decided to come back to college at this stage in her life, Meggie offered,

I want to be an inspiration to my girls, to show them it’s never too late. I’d never have believed if you’d told me I was going to have children at 20 and my whole life plan would change, and I had to drop-out. I want to inspire others because everybody's path is completely different.

Similarly, Tayaka remarked, “I’m trying to better myself for the children and be an example for the baby. Without me they’d be lost. I really didn’t land a job with good money, so I couldn’t take the children on vacation. That’s why I want to go to school for a better career, so I can afford

better times and memories.” Yolanda knew she was meant for something more, stating, “I have a desire to educate myself to help my family economically as much as I can and show my girls to keep growing.”

Some participants felt stigmatized in their gateway courses as the oldest student. Yolanda, for example, observed, “No one else looked like me. It was embarrassing to be the oldest in class. Imagine being 30 with a bunch of teenagers. I wish, just once, another lady would have been with me.” Some participants expressed a desire to be a support system for other women with similar experiences. As Meggie put it,

I hope your study gets my story out there and inspires others that if I can do it, they certainly can. It is never too late to go back, never. It might be hard, but it’s worth it. I’m not walking this path alone, there’s other moms and ladies who are students like me, and we’re going through similar situations. There may be someone in a worse situation. I don’t see them in my classes, but your study tells me they’re here, and it means a lot to know someone else is out there.

Emily added, “I feel better knowing I’m not the only one who does all this stuff besides schoolwork.” For Erin, being included in the study was empowering: “Thank you for asking about my journey. Being a mother is the greatest superpower in the world, but I am glad I am able to speak up for those that are not mothers yet. We battle hardships too.”

Analysis of Research Question #2

The second research question asked, What intervention(s) can be implemented to increase the persistence of adult women learners in gateway and general education science courses? The intervention design and implementation focused on increasing student success and persistence and was grounded in data collected from the themes derived from the coding process. The data were shared with the campus community through inquiry partner meetings and the curated poster exhibition to design the intervention strategy.

Curated Poster Exhibition

The curated poster exhibition featured select images and narratives from the interviews and aimed to share the perspectives and experiences of adult women learners to address the first research question. I selected photovoice because images are ubiquitous in modern culture, encouraged the audience to engage with the posters at their own convenience, and stimulated conversations amongst viewers (Creswell & Guetterman, 2019). The combined imagery and firsthand accounts functioned like a primary source document, evoked emotional reactions, and illustrated participants' perceptions of their college journey. I hoped to facilitate buy-in from the greater campus community before the intervention design and implementation (Sastre, 2021; University of Kansas, 2023). During Phase I several faculty inquiry partners expressed a dismissive attitude towards adult women learners when I asked them to review a potential survey and a faculty said, "In my experience they have plenty of time. They look for any excuse they can" (see Appendix F). In addition, adult women learners have historically not been included in campus initiatives due to the small population, lack of success, and low persistence (see Figure 2). The poster exhibit acted as a launch point for future inquiry partner conversations that I detail in a subsequent section.

Before beginning the study, I was aware of the potential risks the nature of the methodology could result in, including angering the administration and alienating faculty. Student success is the cornerstone to my educational philosophy, and as a member of the adult women learner population, I felt this research was necessary in order to stimulate change on campus and potentially on other campuses. In order to allay potential fall-out, it was necessary to have several casual meetings with the President to introduce the study's subject matter, why it mattered to me and the institution, and the photovoice methodology.

Beginning January 11, 2024, I met with the VP of Academics and Student Services and the President to present the chosen images and narratives. I sought feedback in case I needed to revise the selections; however, all feedback was positive. During initial inquiry partner meetings, I discussed with the art instructor and marketing director whether to use a digital or physical format. We decided a physical poster exhibit would facilitate campus buy-in and strategized how to develop and design the most effective exhibit. The LRC was selected as the location for ease of access and appeal to many campus stakeholders, including teachers, staff, administrators and students. The LRC had previously sponsored several shows of student and community art and had previously installed a gallery system.

I brainstormed with inquiry partners the logistics of how to easily create and edit the poster exhibition, and the director of marketing suggested Canva's educator software. Canva enabled the creation of a digital copy for future use during webinars or professional development. I asked for input regarding a budget and the anticipated costs of a reception, frame acquisition, and the feasibility of printing the posters. I required instruction in the use of the Canva platform and the director of marketing guided the initial process. Incorporating accessibility standards was discussed along with image placement.

The marketing director and I created, revised, and converted an advertisement to social media posts (see Appendix K). I paired collected images with participant quotes to create 22 artifacts for the study, of which 17 were displayed (see Figure 8). I asked external inquiry partners to review and edit the initial designs. Using Canva's document printing feature, I printed each poster and retrieved them from Staples (see Appendix L). I purchased frames from Amazon so that I could use the artifacts again as needed. The overall cost of the study, including Amazon gift cards, printing, and framing was \$766. Subsequently, I coordinated with inquiry partners, including the director of marketing, the art instructor, the library coordinator, and the library assistant to set a date. When curating the poster exhibit, I worked with my library coordinator and library assistant to establish the spacing and order of the posters so they told a unified story. For the most part, the posters were in order by participant; however, I made alterations to create the maximum impact, and I placed the poster containing Meggie's quote, "I prefer online classes" beside Erin's, "I hate online classes" to impress on the audience how adult women learners are not universal in their learning preferences. I deliberately juxtaposed Yolanda's poster containing the quote, "Sacrifice to benefit my family" beside Meggie's poster that stated, "It's official" to demonstrate her joy at reentering the program. I ended the exhibit with Pamela's posters because she focused on her family and the struggles they faced. Finally, I separated Emily and Erin's posters to weave their stories within the rest to impress that all adult women learners have unique experiences, some are younger than 30 years old, and not all are married or mothers. The order of the poster display began with the title, followed by a student breakdown to establish the purpose of the study and reinforce that adult women learners are a minoritized population and depicted Figures 1, 2, and 3. It continued in the this order: Yolanda, Meggie's poster stating, "It's official," Emily, Marbella, Tayaka, Meggie's other two, Erin, and Pamela. I

selected this placement across the LRC because there were several tables and soft seating available for the viewers to mingle, sit, and study the images while preventing clumping of the audience. The artifacts were displayed in Pineland's LRC March 26, 2024, to April 5, 2024, with a reception held the first night, attended by 16 faculty, staff, administrators, five study participants, Emily, Meggie, Erin, Marbella, and Pamela, and several students. I originally intended for the poster exhibit to end March 28, 2024, however at the opening reception the President asked, "I hope you are keeping this up for a while?" As a result, I extended the poster exhibit to April 5, 2024.

During the poster exhibit reception, the inquiry partners comprising the LRC staff, art instructor, and director of marketing and I moved around throughout the space to document observations. Observations included positive and negative viewer reactions, non-verbal behaviors, viewer reactions to specific posters, and the viewer's stakeholder group. These data were combined with observations of behavior from the study participants and any adult women learners in attendance. In addition, I combined these observations with observation data collected throughout the run of the poster exhibition to aid in the design of the intervention strategy. Initially, I observed that the Pineland faculty came to the event in small groups of three or four, but they clustered in a group of six around the statistical breakdown poster and participated in an active conversation. The President said, "Only 19% of our population is male. The men of this society are failing. We are ranked 38th in size in the system, and this lack of men is not unique to us. This is everywhere." I heard the director of distance learner comment to another staff member, "I wish this study happened when we were students here. It's universal." A faculty member agreed, offering, "Your work is a tapestry of college experiences woven together to tell

The kids are playing outside and I'm on the laptop on the porch. It's been a change and challenging because I feel guilty I'm not spending as much time with my kids. But I feel like, the oldest started to understand that I'm doing something great. I'm still making that time to be a mom you know? It's not as much time, but it's gonna be worth it at the end. But even though my children only have me, they're seeing a strong mom.



My son sees me doing my schoolwork and he says he's hungry, [but] never mind mom I'll make a sandwich. [I think] when did you grow up, you know? But thank you for growing up, yeah and helping. Like a sad but happy moment at the same time.



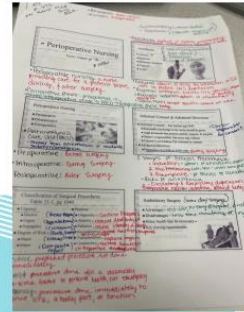
I go pick up my girls and help them with homework when I haven't finished mine. Choice, you know?



This is after working night shift. I had to do paperwork until 2:00-3:00 a.m. and be in the clinical setting by 7:00 am for 12 hour shift.

Many times I-I am to the breaking point and I just go to the bathroom in my clinical setting and I cry. I feel like I-I-I just can't do it.

Before, I take one class at a time. Because I am a mother, I had to work, and I wasn't able to be a full-time student. Nursing is not a choice, you have to be full-time, 12 hour shifts for my clinicals. The biggest challenge is nursing. I left a secure job with benefits to start nursing from scratch.



I'm the oldest this semester in class. The younger students help me find the links and with logging in.

The biggest challenge is nursing school is no joke. The PowerPoints - that's been the challenge. You have to retain all that.

I basically study from 10 pm to 1, 2 in the morning. Sometimes I separate away from my family to study and to really focus.

I'm a mom of three, my day involves getting up at 5:30, getting all three children ready. The bus gets there and then I take the other two to daycare. Being a mom, I think, is one of the hardest jobs that I've had. I attend school, or clinical, I get home, cook dinner, help my oldest with his homework.

This encouraged me that I'm not alone, there's other people and we're going through similar situations. And I mean that means a lot...and it'll kind of change your mindset. I'm not walking through this path alone there's someone who may be even in a worse situation.

My son is three years old and he was diagnosed with Autism so balancing is definitely a challenge for me.



Thankfully I've got a good support system at home, my fiancé and my mother. I'm very blessed in that aspect.

I come to work for six hours and leave to go to class and as soon as I get out I come back to finish up my [work] hours. Then once I get everybody else situated but myself I stay up till about 12:00 in the morning. And then I play repeat everyday.

Figure 8. Poster artifacts.

a story. Like a clothesline runs between them to represent interconnectedness. It is extremely moving.”

As the faculty moved to other posters, they stopped in pairs to read and engage in conversations. The conversation regarding Yolanda’s posters reflected her struggle as an English language learner who was about to graduate with her nursing degree, and members of the administrative team expressed pride in her quote, “It is a family college, and they care about the community. For seven years it has been a second home.” The VP reflected that Yolanda’s story was representative of the mission and vision of the institution to enhance the quality of life for the county. When viewing Emily’s poster, a faculty member stated to another, “They pick their battles, I can relate to that. And I recognize having no time for a being in a club.” While viewing Marbella’s poster, I heard a staff member say, “There should be money for testing fees because they are so expensive. Many take them multiple times like her.” The student success coach became excited while viewing Meggie’s poster, exclaiming, “Oh look, I got a shout out! That makes me feel good, that I really make a difference for students.” Many remarked on the dichotomy Meggie and Erin expressed with online learning, and one faculty member said, “You assume they all love online learning, but this says otherwise.” Another stated, “The one that talked about having to ‘teach yourself online,’ struck me.”

After viewing the entire poster exhibition, I heard many comments about possible next steps. The department chair of social sciences said, “I wish we could create a cohort for them, or maybe social media is the way to go. So they can support each other.” I heard the faculty member who claimed when reviewing the survey, “They just don’t want to do the work” say, “I wish there was a more actionable result.” A faculty member said, “I am going to bring my two communication classes down tomorrow because they are both Early College students and they

have little understanding of the hardships we face when we go back to school.” The faculty member who teaches the gateway courses CHM-092 and MAT-110 noted, “There is a lot of grit out there. It’s not in the traditional age but the adults who have the schedules and three kids.

Those are the ones I want to help succeed because they want it.” The President stated,

You really need to share your research. I want this placed on the webpage. Then we need to share it with the system office. I often lose touch with this in my day-to-day work. You have captured an important aspect of our college.

Through the two weeks of the exhibit, Pamela’s story was the most mentioned as having the greatest impact on viewers. A faculty member shared, “Oh, the last one about had me in tears, the one with her son making his own sandwich.” The President agreed, saying “For many of these, you need tissues when you read them, especially that last one.” An early college student could relate: “This reminds me of my mom when she went to school. Like she struggled, but I’m proud of her.” The LRC coordinator expressed, “It was very moving, and made me tear up. I am so proud of all these women. You really showed how challenging it is for them.”

An adult woman attendee expressed, “We all feel like we’re alone, but this helped show there are many other women struggling.” Study participants stated that they felt moved by the study, because they recognized others with similar experiences. While walking around the poster exhibition Meggie was excited to find a group of faculty and staff gathered around her pair of posters and smiled while she observed their feedback. After completing the poster exhibition, Meggie remarked, “Seeing the pictures and stories of others showed me I am not the only working, student mom. That was really cool and meant a lot. You did really good.” Emily expressed how happy she was when she found her posters: “This looks great. Thank you for the opportunity and the eye opener.” Pamela expressed pride in being included and asked to keep her

posters to remind her of her hard work and I forwarded all participants a copy of their posters by email. Erin expressed pride through an email and commented, “I was able to speak up for those that are not mothers yet. We battle hardships too.”

A class of 13 early college high school students visited the poster exhibition the day after the opening reception. Unlike the faculty and staff, the student reactions focused on the women’s sacrifices. They expressed feeling inspired by the women’s journey and one stated, “Many of them sacrificed to finish. They spent long nights studying and lost family time.” Another agreed, saying, “They sacrificed the now, or status quo to have, hopefully, better futures.” A young woman said, “Many of them are holding on to hope to pursue dreams.” A young man noted, “Wow. I knew people struggle to come to school, but their experience is so different compared to ours.” I heard, “A lot of people are in the same shoes as me [being a student], but they have it harder.” The LRC assistant noted a student reflecting while viewing Yolanda’s poster, “She faced problems from struggling, working, and taking care of kids. But it didn’t stop her.”

After completing the poster exhibition, I held a question-and-answer session for the early college students. A 16-year-old student asked of the student breakdown poster, “I don’t get why you grouped them as a minority. You excluded the rest of the students. I don’t see how they’re special. Like that one” referring to Yolanda’s poster, “I get its frustrating and all, but why would she be embarrassed? I don’t mean to discriminate.” I explained, “It’s embarrassing and frustrating when no one else in class looks like you. Raise your hand if you have ever been in a course, like English, with more than one woman at a time? That makes them minoritized. Only 12.8% of the student population are adult women taking the gateway classes.”

The early college students completed a survey asking, “Which poster was your favorite?” and five of 27 selected Marbella’s poster, in which she discussed being a mom of three and

staying up until 2:00 AM and getting children ready for school at 5:30 AM (see Figure 8, second image). Meggie's poster, in which she discussed her son's autism diagnosis, was selected by three early college students (see Figure 8, fourth image). Two early college students picked Yolanda's poster where she is sleeping while studying (see Figure 8, third image). The faculty and staff selected Pamela's poster where she discussed her son (see Figure 8, first image).

Intervention Design

After the exhibit ended April 5, 2024, I went to the President, Vice President of Academic Affairs and Student Services, and the planning and research coordinator on April 9, 2024, to discuss the creation of an intervention initiative to increase adult women learners' persistence. The poster exhibit highlighted the perceptions adult women learners have regarding the causes of gaps in success and persistence among adult women learners. Simultaneously, several departments expressed a desire to change the existing student success coaching system. The VP invited me to attend a meeting with the Academic Dean and Dean of Student Services, where the planning and research coordinator presented annual student survey results, that presented opportunities to enhance student success coaching. The department previously faced significant turnover, along with gaps in leadership and training. In collaborative meetings, the VP and I explored how success coaching could drive incremental improvements for students, and I suggested a student success model successfully used by another community college. After the initial meetings, the institution restructured the organization, changed the student success center's leadership, and appointed me Director of Learning Resources and Student Success. Recognizing my limited experience in leading a student success department, administration provided mentorship by hiring an external consultant.

The intervention design used a grassroots campaign by actively engaging specific institutional stakeholders who were open to change, including healthcare faculty, the Dean, department chair, the division secretary, the VP of Academics, and the success coaching team. Concurrently, the nursing department experienced turnover, prompting the Dean of Healthcare and VP to meet to explore how success coaches could better support the healthcare division. These meetings focused on strengthening support for pre-nursing students, who took the gateway and general education science courses with limited success and had limited interaction with nursing faculty outside of advising, ensuring a more structured and accessible support system. Since pre-nursing students followed individualized plans rather than a set curriculum, their course loads and persistence varied. A dedicated success coach who acted as their advisor from application to graduation would provide additional guidance and support this effort. The VP supported this prioritization of pre-nursing because (1) the largest number of adult women learners are in the pre-nursing program, (2) pre-nursing requires the most gateway and general education science courses, (3) pre-nursing students struggled with success and persistence in those courses, and (4) pre-nursing students could benefit from a committed relationship.

An external consultant facilitated the process, but the core of the intervention strategy emerged from the grassroots campaign developed through firsthand participant experiences. Participants stressed the importance of caring advisors, as well as having someone provide encouragement and a listening ear. The inquiry partner team's final recommendation resulted in a solution tailored to the needs of adult women learners to revise the student success coaching model to increase persistence, specifically targeting pre-nursing students by providing a dedicated advisor and success coach.

Intervention Implementation

Consultant. In May of 2024, an external consultant was hired by the VP of Academics and Student Services using funds from the Underserved Student Population Grant. The inquiry partner team tasked the consultant to analyze the life cycle of a student from application to graduation and identify opportunities for incremental changes for the success of adult women learners. The consultant was further tasked with the revision of the student success coaching model by outlining systemic, achievable processes and procedures to provide tailored student support. The revision aimed to break down silos between student services and student success coaches, as well as faculty to reduce stop-outs and withdrawals resulting from inconsistent processes, confusion between departments, and miscommunication. The consultant spent two days on campus and conducted individual interviews with a cross-section of faculty, staff, deans, key personnel, and the success coaches. She provided a structured opportunity for campus members to communicate to an external source the successes, challenges, and areas of breakdown that impede student success. After the initial interviews, themes were identified and shared with the inquiry partners. The consultant provided information about the purpose, strategies, and role of success coaches.

A series of professional development sessions were designed to mentor my leadership skills and provide the knowledge necessary for my new role. The consultant and I met weekly via Teams for an hour over a period of three months. In addition, she met as a group with the success coach staff weekly and with the coaches individually twice during the three months. The professional development was for the consultant to establish a framework of holistic methods successfully employed at other NCCCS institutions to decrease stop outs, strengthen relationships between coaches and faculty, and generate tailored supports the success coaches

implemented. The consultant worked with the success coaching team to change the structure of the alert system used within the Watermark software and empowered the coaches to develop a training guide that was shared with faculty at the start of the Fall 2024 semester.

At the end of the three months, the consultant debriefed the inquiry partner team with the student life cycle through the lens of the entire campus's processes rather than individualized department processes that overlap and occasionally conflict. For example, there was confusion between the faculty and student services regarding when student services sent applicant transcripts to departments to review. The VP stressed the importance of student success and persistence rather than individual processes.

Healthcare Success Coach. The intervention strategy developed a grassroots campaign to increase adult women learner persistence and targeted pre-nursing students by providing a dedicated advisor and success coach and by building strong relationships between the success coach and healthcare division. The healthcare success coach role was designed to support pre-nursing students through gateway science courses and the nursing application process through input with faculty inquiry partners and the VP. The Dean of Healthcare and nursing department chair fully supported the implementation of the healthcare success coach. She provided consistent advising to the pre-nursing students, as there was no unified individualized support for pre-nursing as compared with other programs. The healthcare success coach alleviated the strain on the nursing instructors who were advising their nursing students, in addition to pre-nursing students with whom they had no established relationship. One strategy the success coach and I created was the welcome call to new applicants to facilitate the student-coach relationship by generating trust and establishing early communication to newly applied students within three days of application. During the call the coach introduced herself, informed the students of their

acceptance, and invited students to complete online orientations to foster a sense of belonging at Pineland.

I met with the healthcare success coach and the Dean of Healthcare and created pre-nursing orientation sessions that were held during late registration for all new students. The orientation sessions were based on the model the nursing department used for the ADN program, as nursing study participants commonly shared that possessing the knowledge of how to access campus support systems increased persistence. Marbella said,

Every staff person over each resource came the first day of class and introduced themselves. They explained what they help with and how we could contact them. That's how I found out about daycare assistance, the food pantry, and tutoring. I've been to other colleges that don't do that.

Packets were mailed to each new pre-nursing student after the initial welcome call. In Summer 2024 and Fall 2024, a total of 31 new pre-nursing students attended the orientations, where the coach defined her role as their advisor and personal and academic support person and provided contact information. Nursing faculty were introduced, information about required testing was shared, and Yolanda, a study participant and program alumnus, discussed her journey as an adult women learner and said, "It's hard but if you have a plan, you can do it. Use the help the school gives you." The coach advised new students to connect with other adult women learners, share their educational journey, and find a peer in the same gateway or general education science courses to have a buddy. She explained institutional supports to help students balance life commitments with school and gave handouts about study groups, tutoring, and where to get assistance with login concerns.

During admission days and late registration, the coach relocated to the nursing division to meet with students for advising purposes and cement the importance of her role as “their person” on campus. Once classes began, the coach visited gateway science courses to review her role and what college resources could assist students. Initial meetings were scheduled after the 10% mark for the coach to determine any potential areas of student difficulty, including if the student worked, was a parent, had transportation concerns, or had previous stop-outs. The healthcare coach also addressed the student’s future plans, including transferring or entering the nursing program at Pineland.

Analysis of Research Question #3

The third research question asked, What are the effects of a customized intervention designed to increase the persistence of adult women learners in gateway and general education science courses? The intervention strategy developed a grassroots campaign to increase persistence by building a relationship with the healthcare division and targeting pre-nursing students through tailored advising and coaching. The effects of the intervention on the healthcare inquiry partners include the integration of the coach into the division. Prior to the intervention strategy, the external consultant discovered silos among the success coaching staff, student services, and faculty. Post-intervention, the healthcare division invited her to attend every nursing department and health division meeting and invited her to participate in the nursing department’s accreditation process. When asked to explain how she felt the coach was effective in pre-nursing student success, the Dean said, “She does a lot of the background work the students need to make them successful and well-rounded and not just pass the classes. She helps with the interpersonal skills that can’t be taught in the classroom” (A. Apperson, personal communication, February 3, 2025). In the weekly administrative leadership team meeting, the

Dean repeatedly reflected on the positive impact the success coach had on the students, noting that she was an active partner in building relationships between the student and college during welcome calls, registration, and admission days. The administration asked the Dean about the nursing program application process, and the Dean said,

The success coach has been a huge help and a student cheerleader during the application process. We've had a record number submitted. Of those, 52% are Pineland students she helped through the pre-nursing program. The coach smoothed the application process by helping students locate and acquire the required paperwork and access the application.

Prior to the intervention, no department had a dedicated success coach. Following the intervention, the Dean of Arts and Sciences, who had not previously been a proponent of success coaches, advocated for a CTE success coach position to support the Business and Education department that contains the institution's second largest adult women learner population. In November 2024, a CTE success coach was hired to support student success initiatives.

Decreasing adult women learners' withdrawal rate in gateway and general education science courses to increase persistence and improve the institution's overall college success rate was a goal of the study. According to the academic progress indicators, in Fall 2024 the completion and success rates increased or remained consistent in five of the seven gateway and general education science courses required for the pre-nursing program as compared to 2021-2022 (see Figure 9 and Table 12). Completion is determined by a student not withdrawing from the course, and success is measured by a grade of a C or higher. In BIO-168, the completion rate increased from 44% in 2021-2022 to 63% in Fall 2024, resulting in a 43% increase. Additionally, the success rate

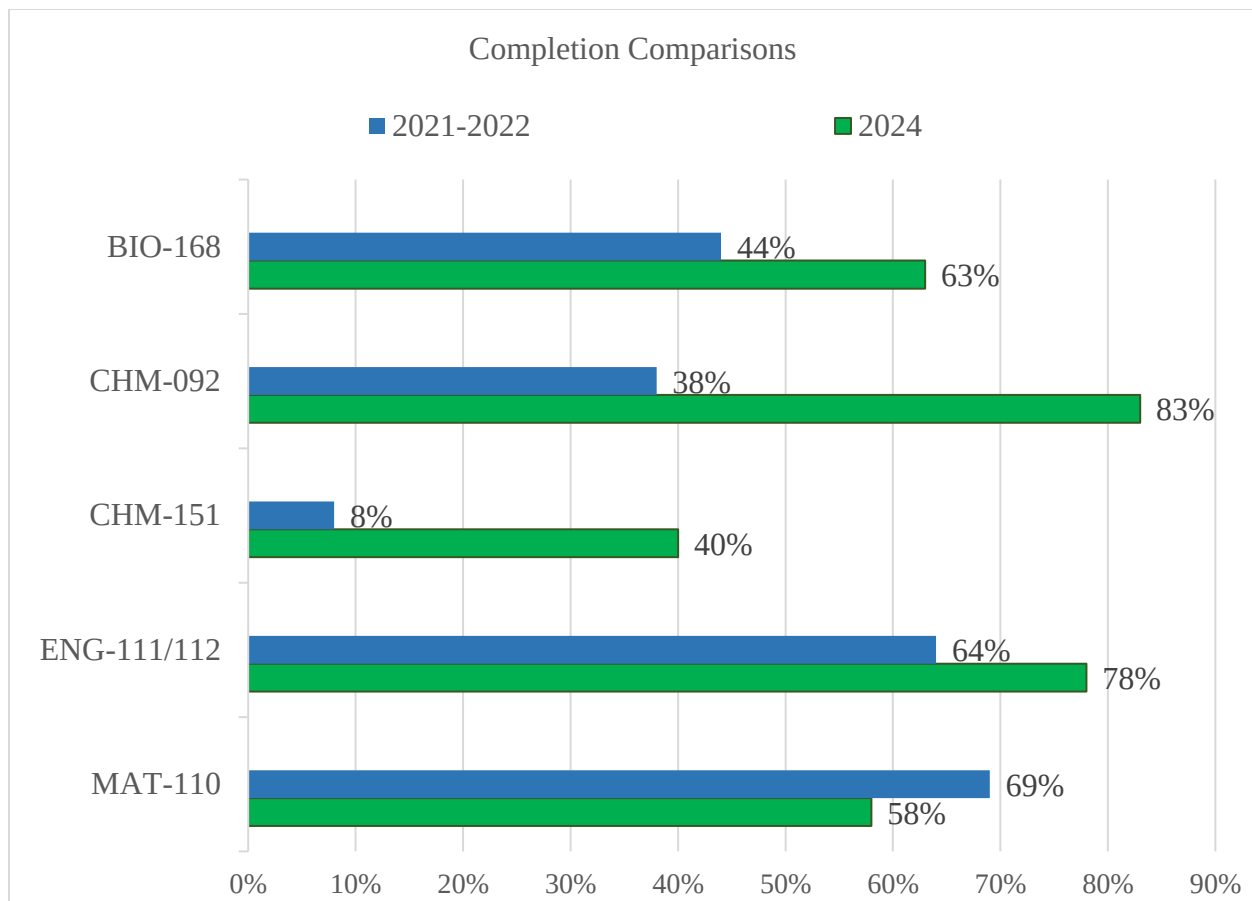


Figure 9. Completion rates, adult women learners.

Table 12

Success Rates for Selected Courses 2024 Fall Ages 25-44 Women

Courses	Pass	Fail	W	WF	Pass %	Fail %	W %
BIO-168	3	5	2	1	38	63	38
CHM-092	4	2	1		67	33	17
CHM-151	2	3	2	1	40	60	60
ENG-111/112	24	22	7	3	52	48	22
MAT-110	6	6	5		50	50	41
MAT-171			4			100	100

Note. n=35.

remained consistent at 38%. The completion rate in CHM-092, a course taken only by pre-nursing students who have not completed the course within 10 years of enrollment, increased from 38% in 2021-2022 to 83% in Fall 2024, reflecting a 118% increase. The success rate increased from 29% to 67%, marking a 131% rise (see Figure 10). In CHM-151, the completion rate increased from 8% in 2021-2022 to 40% in Fall 2024, for a 400% increase, and the success grew from zero to 40%. The completion rate in ENG-111 and ENG-112 reflected an increase of 22% from 2021-2022 to Fall 2024, and the success rate grew 4%. For this inquiry, all withdrawal types are counted in the withdrawal; a student withdrawal prior to the 70% point earns a W; after the 70% point, the student earns WF if failing.

While the precise causes of changes in the performance measures of gateway courses are unclear, the division identifies the new healthcare success coach as a cause resulting from targeted coaching interventions, relationship building, and faculty and coach interactions. As a result of Pineland's response to the study, a professional development presentation was designed that shared the poster artifacts at the North Carolina Community College System (NCCCS) conference held October 15, 2024. The presentation led audience members to share their personal stories as adult women learners. An audience member stated, "The study highlighted the significance of adult women learners within the community college system. Adult women learners are underrepresented in NCCCS research and initiatives, which focus on Male Minorities, CCP, adult learners as a group, and Hispanic-Serving Institutions (HSI)."

Summary

This chapter reviewed the study's purpose, methodology, and key findings. It described participant recruitment, profiles, interview structure, and data collection methods, including

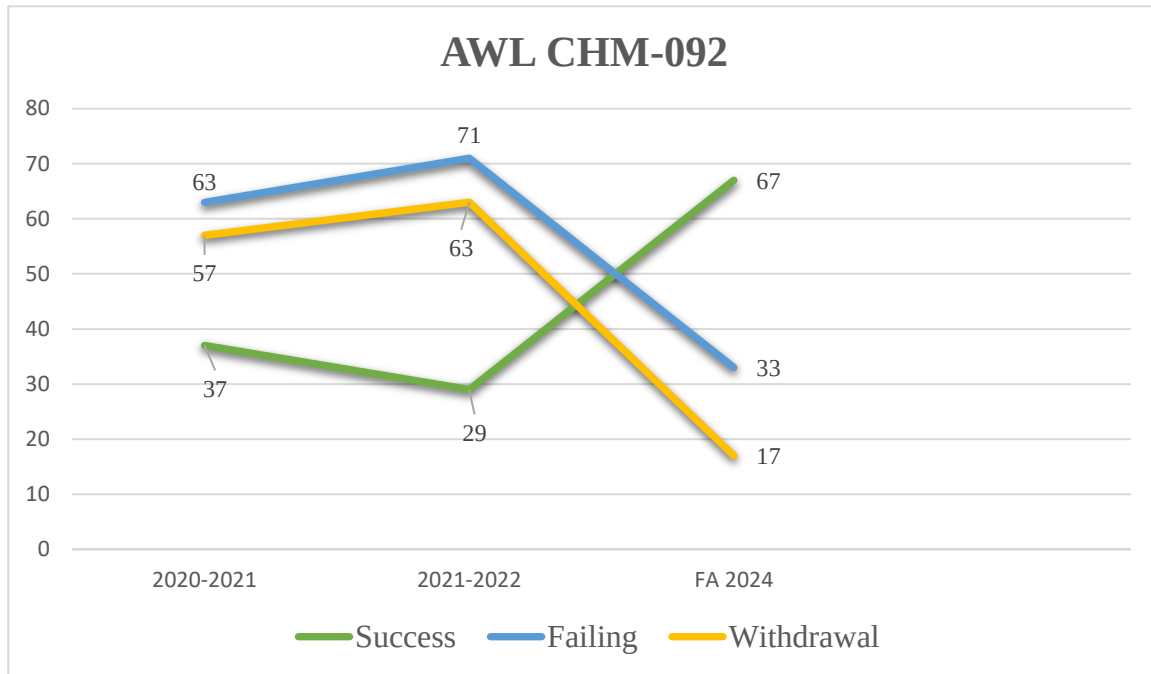


Figure 10. CHM-092 comparison, adult women learners.

modifications to the interview protocol. A three-phase design was used, incorporating semi-structured interviews, data analysis, and collaboration with inquiry partners to develop and evaluate an intervention. The prevalent codes and patterns were analyzed and three themes emerged: (1) adult women learners often experience difficulty balancing educational pathways and life responsibilities, (2) institutional and personal support systems increase the persistence and success of adult women learners, and (3) these learners benefit from sharing their educational journeys and personal growth. These themes provide valuable insights into the challenges and supports influencing adult women learners' educational experiences. Outlined was the design process of the targeted intervention strategy and the effects of the intervention to increase student persistence in gateway and general science courses. Chapter 5 will discuss how the findings relate to current research, recommendations for practice and future study, and implications of the study for social justice and adult women learners.

CHAPTER 5: SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This chapter offers an analysis of the data collected to address the three research questions. The purpose of this qualitative participatory action research study was to design, implement, and evaluate an intervention strategy to increase the persistence of adult women learners in gateway and general education science courses at Pineland. In addition to recapitulating the study's core findings, I articulate the implications of the study and provide recommendations for future research and practice. The guiding research questions were:

1. What do adult women learners perceive as supports and hindrances in their college-going trajectory in gateway and general education science courses?
2. What intervention(s) can be implemented to increase the persistence of adult women learners in gateway and general education science courses?
3. What are the effects of a customized intervention designed to increase the persistence of adult women learners in gateway and general education science courses?

By answering these questions, this chapter illustrates the challenges and the supports adult women learners experience in community colleges.

Interpretation of Results

This study examines the experiences of adult women learners in gateway and general education science courses through Acker's (1990) gendered organization theory, alongside Iloh's Model of College-Going Decisions and Trajectories (2019). Gendered organization theory explores how institutional structures, designed with traditional students in mind, subjugate adult women learners with outlier responsibilities. Iloh's model focuses on the dynamic interaction among personal, familial, and socio-economic factors, highlighting the role of time-based

constraints; the intersectionality of gender, race, and class; and the importance of institutional personal support systems in fostering persistence in higher education.

Participants in this study felt that the organizational culture of community colleges remained rooted in hegemonic structures that did not fully acknowledge or accommodate their needs. These institutional constraints often created additional barriers for adult women learners, hindering their ability to persist. The findings support Acker's (1990) gendered organization theory that describes a cultural view of an ideal community college student as one who focuses primarily on academics, with minimal outside obligations or who has parental support for dual enrolled students. In contrast, adult women learners experience persistence challenges due to their competing roles across work, family, caregiving, and student domains. Many participants relied on support from advisors, faculty, and family to navigate the challenges they faced.

The findings of this study indicate that success coaching has a significant effect on increasing adult women learners' persistence and success in gateway and general education science courses in community colleges. A review of the literature revealed a limited number of studies specifically examining this relationship. Previous research suggested a positive impact from success coaching on success. Connelly et al. (2019) found that nursing students benefited from meetings with academic coaches, either individually or in small groups, to identify risks and promptly develop action plans. These meetings aimed to foster relationships, improve communication, manage stress, and build student self-confidence. A key finding from Connelly et al. was the importance of fostering peer-relationships. Similarly, the present study found adult women learners often lacked a sense of belonging to the greater campus.

VanZoest, Harry, and Breeden (2023) emphasized the need for NC community college to engage in innovative methods to promote student success, including targeted success coaching

available to adult learners upon entry to college. The study highlighted creative advising strategies, flexible course offerings, and structured interventions to improve persistence. While these findings align with the importance of success coaching, the present study specifically examined the impact of individualized success coaching on the persistence of adult women learners in gateway and general education science courses and stressed developing relationships with faculty. By addressing the unique challenges faced by adult women learners, the present study contributes to the literature on holistic approaches that enhance persistence and success in NC community colleges.

The findings support Acker's (1990) gendered organization theory that describes a cultural view of an ideal community college student as one that prioritizes academics with minimal external obligations. This framework helps explain why adult women learners who balance work, family, and caregiving responsibilities face persistence challenges in higher education. Many adult women learners reported completing homework late at night or while their children were in school, highlighting the significant challenge of balancing academic and caregiving responsibilities. Additionally, all five mothers in this study expressed experiencing "mom guilt" consistent with Stone & O'Shea's (2019) work on the emotional strain faced by student mothers.

Institutions can help adult women learners' persistence by creating more equitable pathways for success, such as offering flexible, responsive support systems in the areas of advising, financial aid, childcare, and counseling. Iloh's Model of College-Going Decisions and Trajectories (2019) reveals the significant influence of time-based constraints, institutional support systems, and the intersectionality of gender, race, and class on the educational trajectories of adult women learners. It further demonstrates how these factors complicate the

idealized student. While the institution cannot counteract all the nuances involved in balancing education with life responsibilities, the study addressed incremental changes that might contribute to better outcomes for these students.

Discussion

Research Question # 1

The first research question asked, What do adult women learners perceive as supports and hindrances in their college-going trajectory in gateway and general education science courses? The first overarching theme revealed that adult women learners experience difficulty balancing educational pathways and life responsibilities. While all participants faced challenges, the specific struggles varied based on individual circumstances. Obstacles led to interruptions in their educational journeys due to non-educational factors identified as time management and balancing their roles as employees, parents, and caregivers with educational pursuits. For example, Emily struggled during her first semester due to caregiving responsibilities for her husband. Yolanda sacrificed full-time employment to pursue nursing, while Erin struggled with online classes due to her demanding work schedule. Many participants expressed guilt and stress, torn between their educational and familial roles. These experiences reflect the constructed reality of adult women learners shaped by their responsibilities. Despite these challenges, participants demonstrated resilience by adapting and scaffolding their strategies, schedules, and expectations. Meggie preferred online classes to manage her hectic schedule, and Pamela's family became more self-sufficient to support her educational pursuits. The demands from competing roles often *impeded* their education and caused challenges that were difficult to overcome without external support, often leading to stop-outs. These findings highlight the need

for scaffolded support systems that address the challenges specific to balancing adult women learners' multiple roles.

The second theme was that when adult women learners have access to institutional and personal support systems, their persistence is increased in gateway and general education science courses. An example from the study was that the nursing program provides a solid introduction to available institutional support systems at the program's start, and the two study participants enrolled in the nursing program identified this orientation as key to their persistence. In contrast, pre-nursing students, though classified under the healthcare division, take their courses through the arts and sciences division and receive no orientation. The institution considers pre-nursing an entity separate from both healthcare and arts and sciences, and as a result, pre-nursing students lack the same connection to support systems and faculty guidance as their nursing counterparts. In other programs, participants emphasized the importance of supportive advisor relationships, further highlighting the gap in support for pre-nursing students. Participants identified specific institutional support systems that were integral to their journey, including financial aid, empathetic faculty, and campus resources such as success coaching, library staff, childcare assistance, the food pantry, and tutoring. Many noted that without these supports, they would have struggled to persist. Participants who had previously withdrawn from courses highlighted how the absence of these supports led to setbacks. The study also revealed structural constraints within the institution, with some participants noting the lack of tailored resources. While institutions cannot eliminate all challenges related to balancing education and life responsibilities, the study demonstrated the value of implementing incremental changes, such as fostering early relationships with faculty and students and ensuring awareness of available support systems.

Personal support systems involving employers and family members play a role in persistence. Emily, for example, noted that Walgreens adjusted her work schedule to accommodate her chemistry class and online coursework. Meggie relied on her employer's flexibility to adjust her hours around class times. Emotional support from family members, particularly spouses, was consistently reported from participants to increase persistence. Marbella and Meggie expressed gratitude for the encouragement and confidence their families provided. Academic and emotional support systems – provided by both the institution and personal networks – were central to participants' persistence. This theme emerged consistently throughout the interviews and led to the final unanticipated theme: the women benefited from sharing their journeys.

The final theme, that adult women learners benefited from sharing their educational journeys and personal growth, emerged throughout the interviews. Participants noted that reflecting on past accomplishments and sharing their experiences through photovoice enhanced their self-awareness and confidence. Many shared photos from significant milestones, such as their first day of clinicals or receiving their CNA certification. They also expressed how vocalizing everyday tasks helped them recognize their own value. Viewing the experiences of others through photovoice empowered participants (especially as they had not observed other adult women learners in their courses) and created a sense of belonging. Developing the sense of belonging was an unanticipated result of the study for the participants and other adult women learners on campus. Participants emphasized the desire to inspire other women to pursue education and set an example for their children. For Erin, participating in the study allowed her to advocate not only for herself but also for other adult women learners (who may not be

mothers) and their unique challenges as adult women learners. Through sharing their journeys, participants gained confidence, strengthened their sense of belonging, and inspired others.

Research Question #2

The second research question asked, What intervention(s) can be implemented to increase the persistence of adult women learners in gateway and required general education science courses? The targeted strategies were designed to improve student success and persistence and were shaped by themes from data coding, a poster exhibition, input from inquiry partners, and feedback from an external consultant. Moreover, they were focused on providing holistic support that addressed both academic and personal challenges faced by adult women learners. Overall, the study emphasized the importance of a holistic approach to lead adult women learners to higher persistence and increased success rates. The intervention restructured the student success coaching model at Pineland, and specifically targeted students in healthcare and pre-nursing. The success coaching team, in collaboration with the nursing department, student services, and curriculum instructors, launched a grassroots campaign to strengthen support for adult women learners. The poster exhibition was central to this campaign, offering participants a platform to share their experiences visually and textually. These methods collectively ensured students' voices were heard, and their experiences were integral to the development and implementation of the intervention strategies.

Inquiry partner meetings involved collaboration with faculty, staff, and administration, with the purpose of designing the intervention strategy. Further adjustments in the coaching model occurred to ensure that adult women learners received personalized, targeted support they needed that was both informed and effective. The external consultant's analysis of the student life cycle also identified areas for improvement, and professional development sessions were

held to strengthen relationships between success coaches and faculty, aiming to reduce stop-outs and withdrawals by ensuring students had access to necessary resources. A dedicated healthcare success coach role was developed to support pre-nursing students through gateway science courses and the nursing application process. Support initiatives were enacted by the coach to familiarize students with campus resources. Early relationship building was an objective of the healthcare success coach and began with a welcome call within three days of application. By instituting the welcome call, students were able to ask questions and have their first official personal contact with the institution, develop trust, and open communication.

Participants stressed the importance of having a person who offered emotional support and having an empathic advisor they could talk to about anything. To create that relationship for adult women learners enrolled in gateway and general education science courses, pre-nursing advising became the responsibility of the healthcare success coach to cement her role as the one person who addresses their needs from admission to graduation. Post-registration, interactions with the healthcare success coach facilitated open discussions about academic and personal challenges. These interventions collectively offered tailored academic and personal support, fostered a sense of community, reduced isolation, and helped adult women learners navigate the challenges of balancing academics, family, and work responsibilities.

Research Question #3

The third research question asked, What are the effects of a customized intervention designed to increase the persistence of adult women learners in gateway and general education science courses? The findings highlight where the institution successfully met the needs of adult women learners and identified areas of improvement in other programs. The study's intervention aimed to decrease inequities in the pre-nursing program, as this program contains Pineland's

greatest concentration of adult women learners. The tailored intervention focused on CHM-092 and CMH-151, because historically adult women learners' persistence in chemistry courses remains negligible, with 71% W/D/F in 2019 in CHM-092 and 100% W/D/F in CHM-151. Due to this lack of success, Pineland staff members seemed dismissive about adult women learners' ability to persist. All students enrolled in CHM-092 are pre-nursing students; this course is required as a pre-requisite for students who have not completed chemistry within ten years, and the enrolled population is predominately adult women learners.

The analysis of the Fall 2024 performance measures revealed substantial growth in the success and persistence in CHM 092 and CHM-151 from previous semesters, and several factors led to this improvement (see Figure 9). First, the broader effect of the study's poster exhibition was the attention it brought to the greater campus community regarding the lack of success for adult women learners and the reasons behind stop-outs. This awareness was created as the campus community engaged in conversations during and after the poster exhibition, which continued through inquiry partner meetings. Pictures and quotes presented a powerful message in a subtle and believable way from the voices of the participants. The chemistry instructor attended the exhibit in Spring 2024, and as a result he asked the success coach to present an orientation to his CHM-092 class during the first week of class. Second, subtle changes in practices occurred because of the consultant's work across staff departments in conjunction with administration, improving communication between departments with a focus on student success instead of departmental silos. Finally, the success coach role restructuring and the relationships she developed with faculty in healthcare and arts and sciences proved beneficial to the students, as she acted as a cheerleader and bridge between faculty and students. The lack of growth across all gateway and general education courses illustrates that while the intervention can be successful to

obtain systemic support in the greater context, more faculty need to be approached. For example, by targeting the intervention to pre-nursing, no improvement was observed in adult women learner persistence in either MAT-171 or MAT-110 ,as the nursing program required MAT-003.

The full impact of these interventions on persistence is still being evaluated, as the cohort has not completed the pre-requisites to the nursing program. Moving forward, the initial feedback from program administrators and students points to positive outcomes, suggesting that incremental changes and support strategies designed for learners balancing academic, familial, and professional responsibilities in gateway and general education science courses increase student persistence and success in community colleges.

Implications of Findings

The findings from this study have significant social justice implications, particularly in addressing the inequities that adult women learners face in higher education. These learners often carry multiple, intersecting responsibilities that traditional college models do not address, including caregiving, work, and family obligations. The study highlights how the structures and policies of community colleges, which are largely designed around the "ideal" student – typically a traditional-aged, full-time learner – disproportionately disadvantage adult women learners who enroll part-time and may not receive financial aid. The study highlighted the need for higher education institutions to dismantle systemic barriers—such as rigid course schedules, limited childcare options, and inadequate advising—that disproportionately impact adult women learners. By implementing targeted interventions, including dedicated success coaching, flexible course offerings, and tailored support services, institutions can foster an equitable learning environment that enhances persistence and success for this historically underserved population. In the community college system, 70% of adult women learners in pre-nursing must complete

CHM-092, and at Pineland the course is only offered at 8:00 AM, which conflicts with school drop-off times. This forces these students to choose between education and their family, perpetuating cycles of inequality. Finally, the use of photovoice as a methodology provides an avenue for marginalized voices to be heard, empowering participants to reflect on and share their experiences. By centering on the lived experiences of adult women learners, this study contributes to a broader conversation about equity, access, and inclusion to reimagine the “ideal student” in higher education. These experiences underscore the central theme that adult women learners perceive life responsibilities as major obstacles in their college-going trajectory. As seen through the participants' stories, these constraints often lead to interruptions in their educational paths, resulting in delays or stop-outs.

Limitations of the Study

Qualitative research inherently involves limitations due to factors beyond the researcher's control (Creswell & Creswell, 2018). A limitation of this study was the time constraint for conducting interviews and analysis, as the interviews and poster exhibition took place in Spring 2024 to facilitate campus buy-in, and inquiry partner meetings needed to occur before faculty departed for the summer. The intervention was developed over the summer and, as a result, was not tested before implementation. Additionally, the study's design limited each participant to four self-selected images; however, four images may have not fully represented the entirety of her experience. There was a risk that participants selected images that did not align with the focus of the inquiry or contained inappropriate content; therefore, to mitigate this, a photo guide was provided to direct participants in selecting relevant images (Eelderink, 2018).

Another limitation was the self-reporting nature of the study, which could cause participants to provide responses they believed were expected or socially acceptable, rather than

those that reflected their true thoughts and feelings (Roessger et al., 2019). The use of images aimed to minimize this bias and encourage more authentic responses. Additionally, the study could not account for participant attrition or for the potential impact of a small sample size due to the finite population.

Recommendations for Practice

The findings from this research, coupled with the President's endorsement, present an opportunity to drive institutional change for adult women learners. The President's commitment to feature it on the college website and share it with the system office underscores its significance and potential to influence broader practices and policies. To leverage institutional endorsement, I recommend continuing to advocate for the integration of these findings into the college's policies and practices. The role of dedicated success coaches, particularly those with expertise in supporting non-traditional students, should be expanded to provide tailored academic and personal guidance. Additionally, faculty should be encouraged to refer adult women learners to success coaches early to strengthen the student-coach relationship and ensure students feel connected to the college community.

In the Pineland context, for the intervention to continue successfully, it is essential to gain additional faculty buy-in beyond the healthcare division and strengthen the faculty's understanding of the role of the success coach. The next steps involve working with faculty to build relationships with open, proactive communication channels, where the success coach is seen not as a resource for students but as a collaborative partner. One key strategy will be encouraging success coaches to attend department meetings across divisions. I recommend that success coaches meet with gateway and general education science faculty to understand their specific challenges in supporting adult learners, which includes outreach efforts like regularly

scheduled check-ins with faculty to collaborate and discuss methods being currently used and to provide faculty with additional tools to effectively assist these students. Tools might include handouts of various strategies like effective group work, the Pomodoro method, and learning styles. Additionally, faculty might allow coaches to guest lecture to provide a brief orientation to the success centers' services. I recommend that coaches make a concerted effort to leave their offices and engage with faculty and students in visible ways, whether in hallways or in specific division areas. This visibility will help to build trust and promote engagement, and collaboration will be vital in ensuring that the intervention becomes more inclusive across all academic areas.

Building on the momentum of the President's endorsement includes continuing to present the findings at future professional development conferences, as was done at the NCCCS conference in October 2024. The presentation led two audience members to share their stories as adult women learners reinforcing the need for the work to continue, and one expressed, "The study highlighted the significance of adult women learners within the community college system. Adult women learners are underrepresented in NCCCS research and initiatives, which focus on Male Minorities, CCP, adult learners as a group, and rural serving institutions."

Sharing the research findings at the system office level opens the possibility for broader collaboration and the adoption of best practices across community colleges in North Carolina. I will work to engage faculty and staff at Pineland to attend the adult learner conference sponsored by the system, addressing the misconception that it is not relevant for curriculum students. This conference provides an excellent opportunity to enhance faculty awareness and involvement in adult learner initiatives. Additionally, I will submit my research to the Belk Center Teaching and Learning Hubs to be considered as a professional development for state community college employees, ensuring faculty and staff development across the system. These efforts provide a

platform to raise awareness about the evolving needs of adult women learners within the context of community colleges.

Recommendations for Research

One of the recommendations for future research is to compile the performance measures for the Spring 2025 and Summer 2025 semesters for a more accurate comparison to previous performance. This will also aid the institution to determine the continued sustainability of the success coach remodel. Further, staff members from various departments at Pineland desire to repeat the photovoice study experience with different student demographic groups to continue to raise awareness of the different perspectives of student groups through their voices. Part of this research would include a survey as viewers leave the exhibit in an effort to gain concrete details in addition to observation similar to the data provided by the early college students survey. The success coach team desires to present on the uncovered trend of Black women who withdraw from all courses (WALL) at next year's NCCCS Conference to share the effects of the deliberate outreach and holds on student persistence and engage in discourse with peer institutions of best practices. As part of this research, students' reason for dropping courses should be explored by contacting the Registrar for drop codes.

This study revealed a notable disparity during the interview process between adult women learners who are parents and those who are not. Future research could benefit from focusing specifically on adult women learners without children or whose children are no longer in the home, as this would provide a valuable comparison point. For example, the experiences and perceptions shared by Erin and Emily, the two youngest participants in the study, differed from those of the other participants, particularly regarding the balance of academic and family responsibilities, and their experiences highlight the importance of distinguishing between the

challenges faced by parent and non-parent adult women learners. Future studies could explore how age, parenting status, and other demographic factors intersect to influence the academic experiences of adult women learners regardless of enrolled courses. This broader approach could help to further differentiate the needs and experiences of adult women learners, leading to more nuanced insights and targeted interventions.

For future research beyond the Pineland context and within the broader community college system, several areas warrant exploration. For example, a study could investigate the use of a dedicated study success coach model across community colleges with varying demographics, resources, and institutional structures, including a focus on the effect of success coaching across academic divisions and beyond gateway and general education science courses. Comparative studies across colleges and systems could highlight differences in success coaching implementation and identify best practices from institutions with high retention and completion rates for adult women learners.

Due to the adjustments in the post-COVID higher education landscape and the reliance of community colleges on distance learning, more research is needed. The study identified that not all adult women learners are unsuccessful in online learning; however, for smaller institutions, there may be a reliance by the institution as face-to-face courses fail to obtain the number of students needed to offer it. I do not know how to address the complexity of online learning and the lack of success for adult women learners without a further exploration into institutional policy and student perceptions and experiences.

Additionally, long-term studies tracking the persistence, completion rates, and career outcomes of adult women learners could help assess the sustained effect of support interventions while examining how institutional practices evolve to support this population. Research into

institutional policy and structural barriers, such as financial aid eligibility, course scheduling, and childcare support should be explored. Intersectionality plays a significant role; thus, studying how race, socioeconomic status, and caregiving responsibilities intersect with gender to impact success, particularly for single mothers, first-generation students, and students with multiple stop-outs is recommended. Finally, examining the role of state-level organizations, like the Belk Center, in driving system-wide policy reforms and exploring the potential for standardized success coaching models across the community college system could contribute to a more cohesive and supportive environment for adult learners.

Growth as Scholarly Practitioner

Throughout my journey as a scholarly practitioner, I changed in unexpected ways. Increasing the significance of adult women learners and providing a platform for their voices to be heard was the reason for the study. Initially, I pursued my advanced degree as a way to leverage a position once I retired from the community college system, but I have gained so much more. During every interview, the participants and I would cry at some point because their experiences were powerful and resonated with me. I am proud the participants placed their trust in me to share their stories and images, particularly as the institution is small and the likelihood of them remaining anonymous was slim. One of my biggest takeaways was watching participants reflect on everything they do in a day, their academic and personal successes, and walking out of the interview feeling empowered. The study allowed me to connect with my participants and develop relationships that extended beyond the interviews. The experience has been a source of personal inspiration.

The research and data analysis I shared during the poster exhibit demonstrated my dedication to student success and persistence. The study provided a snapshot into the often-

overlooked lived experiences of adult women students in the institution's focus on enrollment statistics, FTE, and other populations. During the poster exhibit and conference presentation, I heard others comment on the necessity and timeliness of the research subject. Broad connections were made with faculty and staff, and I was surprised by the President's open reception to the poster exhibit. I never imagined when I began this journey that the words of seven women would be the impetus to widespread changes in policy and procedure.

There were potential risks inherent in the study's design as it identified supports and hindrances across the institution. I feared push back, defensiveness, or a failure to embrace change from faculty and administration. The study could have been conducted without sharing the findings, but I am passionate about the subject matter, as I am the embodiment of the study population. It was necessary to develop a strategic plan during the planning phase of the study to evaluate my institution's climate and receptiveness. Meetings were held with the President several months in advance to provide time for questions related to the design and acceptance of the FoP. During the pilot study, I made a concerted effort to share the findings and purpose of the study, and additional 'drop-in' meetings occurred in Phase I to share codes and eventually themes the study uncovered.

Professionally, my goal for the library is to make it the hub of campus, a place of significance to faculty and students beyond books. Librarians are often categorized as a necessity of colleges, required by accrediting bodies while providing no FTE, revenue, or direct impact on success. As a result of the study and sharing it, my sphere of influence extended beyond the library silo, which increased the library's value. While not my intention, the study opened opportunities as others realized I was avidly striving to make a difference for students. These opportunities included an unexpected promotion and invitation to join the leadership team. As a

result, the institution invested in my leadership growth by recommending me to the North Carolina Community College Leadership Program. Through these experiences, I recognize the importance of thinking beyond my immediate area of responsibility.

My growth as a researcher and work with success coaching allowed me to see how small adjustments in student support strategies impact institutional practice. The greatest personal success is the sustainability of the intervention to meet student needs as they are uncovered. A Dean who previously had been dismissive of student success coaches requested one for a department after the success of the intervention. This filled me with pride and a sense of accomplishment beyond earning the degree. As the higher education landscape changes, the intervention will evolve to encompass all students. When I reflect on the number of people who have supported me throughout this process, I realize I am blessed. The research journey was challenging, but the personal rewards and increased self-efficacy were greater. This holistic approach to leadership and research allowed me to grow personally as a practitioner and enhanced my ability to contribute to positive change within the institution.

Conclusion

This study explored the experiences of adult women learners in gateway and general education science courses, shedding light on the unique challenges they face in higher education. The findings underscore the significant role of time-based constraints, intersectionality, and the importance of institutional and personal support systems in shaping the academic trajectories of these learners. Through the lens of Iloh's Model of College-Going Decisions and Trajectories (2019) and Acker's (1990) gendered organization theory, this research highlights how higher education institutions, particularly community colleges, often operate in ways that are not conducive to the needs of adult women learners. Adult women learners – balancing caregiving,

work, and academic responsibilities – navigate a system designed with traditional students in mind, leading to challenges that are frequently overlooked.

The study's results reinforce the need for higher education institutions to reevaluate their support systems and policies to better serve all students, including adult women learners. By creating spaces for community building, building a sense of belonging, and tailoring support systems, colleges can foster greater persistence and success for this student population.

Additionally, the study highlights the value of training faculty and staff to better understand and support the needs of adult learners. While the study provides valuable insights into the experiences of adult women learners at Pineland College, it also opens the door for further research. Future studies should explore the experiences of adult women learners with different family dynamics, particularly those who are not parents, to provide a comparative perspective on how parenting status influences academic success. Additionally, future research could examine the intersection of age, gender, race, and class in shaping the educational experiences of adult women learners, with the goal of identifying even more targeted interventions and supports. By acknowledging the complexities of their lives and providing tailored support, institutions can help create a more equitable educational environment, enabling adult women learners to persist and succeed.

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APPENDIX A: INSTITUTIONAL REVIEW BOARD APPROVAL



EAST CAROLINA UNIVERSITY
University & Medical Center Institutional Review Board
Willis Building - Mail Stop 682
600 Moye Boulevard - Greenville, NC 27834
Office 252-744-2914 ☎ - Fax 252-744-2284 ☎ - redc@ecu.edu/
umcirm/

Notification of Exempt Certification

From: Social/Behavioral IRB
To: [Michelle Milliken](#)
CC: [David Siegel](#)
Date: 12/4/2023
Re: [UMCIRB 23-000829](#)
It's Been a Long Time Coming

I am pleased to inform you that your research submission has been certified as exempt on 12/4/2023. This study is eligible for Exempt Certification under category # 1,2 AB.

It is your responsibility to ensure that this research is conducted in the manner reported in your application and/or protocol, as well as being consistent with the ethical principles of the Belmont Report and your profession.

This research study does not require any additional interaction with the UMCIRB unless there are proposed changes to this study. Any change, prior to implementing that change, must be submitted to the UMCIRB for review and approval. The UMCIRB will determine if the change impacts the eligibility of the research for exempt status. If more substantive review is required, you will be notified within five business days.

Document	Description
11_9 Milliken Approved 10 27 2023_.docx(0.01)	Study Protocol or Grant Application
Advancement_to_Doctoral_Candidacy_.pdf(0.01)	Additional Items
Consent for Participant.docx(0.03)	Consent Forms
Milliken_Interview Protocol(0.04)	Interview/Focus Group Scripts/Questions
Non-participant Consent to be photographed.docx(0.03)	Consent Forms
Photo guide.docx(0.02)	Consent Forms
recruitment-script.docx(0.01)	Recruitment Documents/Scripts
Summary.pdf(0.01)	Additional Items

For research studies where a waiver or alteration of HIPAA Authorization has been approved, the IRB states that each of the waiver criteria in 45 CFR 164.512(i)(1)(i)(A) and (2)(i) through (v) have been met. Additionally, the elements of PHI to be collected as described in items 1 and 2 of the Application for Waiver of Authorization have been determined to be the minimal necessary for the specified research.

The Chairperson (or designee) does not have a potential for conflict of interest on this study.

APPENDIX B: INFORMED CONSENT

You are invited to participate in a **research** study titled “**It has been a long time coming: Supporting Adult Women Learners’ Persistence in Community College,**” conducted by Michelle Milliken, a student at East Carolina University in the Department of Educational Leadership Department. The purpose is to assist us in better understanding why adult women learners withdraw from gateway math, English, and science courses. The goal is to interview seven to ten adult women learners with photovoice in Community College. The interview will take approximately 60 minutes and includes sharing photos you have taken on your smartphone or social media.

Your responses will be audio recorded and kept confidential as you will be provided with a pseudonym to protect your anonymity. Your participation in the research is **voluntary**. You may choose not to answer any or all questions and stop anytime. I cannot pay you for the time you volunteer while in this study. There is **no penalty for not taking part** in this research study. If you complete both parts of the study you will receive a gift card to Amazon.

Tangible physical data will be stored in locked filing cabinets in the researcher’s office indefinitely. Audio files about this study will be stored on the researcher’s password-protected computer for three years and then destroyed. Interviews will be transcribed and stored on the researcher’s password-protected computer indefinitely. Only members of the research team will have access to the raw data.

Thank you for your time,

Please call Michelle Milliken at **919-842-7658** or 910-900-4136 for any research-related questions or the University & Medical Center Institutional Review Board (UMCIRB) at 252-744-2914 for questions about your rights as a research participant.

- I have read (or had read to me) all the above information.
- I have had an opportunity to ask questions about things I did not understand in this research and have received satisfactory answers.
- I authorize the use and disclosure of my health information for this study in the way that has been described in this form
- I know I can stop participating in this study at any time.
- I understand I will be given a pseudonym to protect my anonymity.
- I understand I must take all images.
- By signing this informed consent form, I am not giving up any of my rights.

Signature: _____ Date: _____

APPENDIX C: PHOTOVOICE GUIDE

Hello, and thank you so much for participating in my project!

- The study focuses on the uniqueness of adult women students
- Challenges and supports to success and persistence
- Things to consider:
 - Where do you do your homework?
 - Have you had to change anything for yourself or your family during school?
 - Who helps you at school or outside of school?
 - Images of faces can be blurred to protect the privacy
- If you have photos on your phone, bring them & you can select one during our time
- Email them to me with captions.
 - Mbm0717@gmail.com or millikenm07@students.ecu.edu
 - I can do this for you if you want; just bring your phone
- I will audio-record the interview
- I will send a copy of your interview to read and verify in Watermark
- I will send a waiver in Watermark that you can
 - Print, pick up, or drop off in the library

Things to avoid:

- Pictures with faces
- Identifiable images of children
- Pictures of classmates or faculty without their permission
- Do not identify names in the captions
- Photos of an embarrassing nature

APPENDIX D: PHOTOGRAPHY CONSENT

This **research** study titled **It has been a long time coming: Supporting Adult Women Learners' Persistence in Community College** is being conducted by Michelle Milliken, a student at East Carolina University in the Department of Educational Leadership department. The purpose is to assist us in better understanding why adult women learners withdraw from gateway math, English, and science courses.

Participants in this inquiry have been asked to share photographs on their smartphones or social media as part of the research inquiry. You are receiving this form because one participant wants to photograph you. All images will be kept confidential, and no identifying information, such as **names**, will appear in any publication, social media site, or presentation of the data. You may be identifiable through the photographs; however, no foreseeable risks are associated with allowing yourself to be photographed.

Tangible physical data will be stored in locked filing cabinets in the researcher's office indefinitely. Interviews with participants will be transcribed for entry into a software program and stored on the researcher's password-protected computer indefinitely. Audio files about this study will be stored on the researcher's password-protected computer for three years and then destroyed. Only members of the research team will have access to the raw data.

Allowing yourself to be photographed for this study is **voluntary**. Please feel free to ask any questions before signing this consent and release form or at any time during the study.

Please call **Michelle Milliken** at 919-842-7658 or 910-900-4136 for any research-related questions or the **University & Medical Center Institutional Review Board (UMCIRB)** at 252-744-2914.

I, _____ [print name], permit to be photographed by participants of this research project entitled **Her Uniqueness is Her Burden: Supporting Persistence for Adult Women Learners in Community College**. The study was explained to me, and my questions have been answered satisfactorily. I have read this project's description and permit myself to be photographed. I understand I will receive a copy of this informed consent document for future reference.

Signature

Date

For Participant Use Only:

Photograph number(s) in which this individual appears:

APPENDIX E: PILOT INTERVIEW PROTOCOL 1

Project: Adult Women Learner's Road to Success

Time of interview:

Date:

Place:

Interviewer:

Interviewee:

1. The purpose of this research study is to design, implement, and assess an intervention program to increase the persistence of adult women learners in gateway and general education science courses at Pineland.
2. This interview and the next one will collect information from adult women learners ages 25-44, such as yourself, in curriculum programs.
3. Photographic images will also be used as another tool for the study.
4. You may elect not to participate in the study at any time without unwarranted censure or repercussions. If you would like, you may leave at this time.
5. I will give you informed consent to read, which outlines essential information.
6. Do you have any questions? Would you sign the form, please?
7. I want to remind you that this is voluntary.
8. With your permission, These images will be used in an exhibition at the end of the semester in the Learning Resource Center to create a conversation about how to help adult women on campus better.
9. I will give you a photoguide through Watermark and to your email, which gives details.
10. Do you have a smartphone? You are to take no more than 15 images on your phone over the next two weeks that reflect people, places, or things that support or hinder your success.

11. Things to avoid include any type of invasion of privacy, and direct participants to avoid the use of faces, identifiable images of children, imagery that may be embarrassing, and providing names in captions
12. Also, if images include images of faculty or students, I have a photo use consent form for them to sign.
13. Before we meet again, you will select the four most meaningful images of your college experience and caption the image. We will talk about those four images when we meet again.
14. You will be given an alias to choose if you like, and all images will be assigned a number. The following interview should take 60 minutes and will be recorded and transcribed. Is that ok?

APPENDIX F: QUALTRICS SURVEY

Direction

Dear Participants:

This survey is about adult women learners college experience. The information you give will be used to improve education for people like you. Please contact me at millikenm07@students.ecu.edu if you have any questions. Thank you very much for your help. Are you willing to participate?

- ☐ Yes
☐ No

What is your current program?

- ☐ Applied Tech
☐ Business
☐ Education
☐ Health Programs
☐ Public Services

Age?

What is your Race/Ethnicity?

- ☐ Asian
☐ Black
☐ Hispanic
☐ Native American
☐ White
☐ Other

Employment Status?

- ☐ Full-time
☐ Part-time (31 hrs or less)
☐ Homemaker
☐ Unemployed

Click all that apply:

- ☐ Married
☐ Divorced
☐ Parent
☐ Caregiver of other family member
☐ Volunteer

APPENDIX G: PILOT INTERVIEW PROTOCOL 2

1. Tell me what is happening in this image.
 - a. Who is in this image?
 - b. Where is the setting?
2. Does this reflect support or hindrance to your college experience?
3. Why is this image meaningful to you?
4. Did this experience of photographing, selecting, and captioning images impact you?
 - a. How?
 - b. Did you reflect on anything?
5. What are your perspectives on Pineland?
6. Do you think anything needs to change at Pineland? If so, how and why?

APPENDIX H: INTERVIEW PROTOCOL

Project: Adult Women Learner's Road to Success

Time of interview:

Date:

Place:

Interviewer:

Interviewee:

The purpose of this research study is to design, implement, and assess an intervention program to increase the persistence of adult women learners in gateway and general education science courses at Pineland. I am collecting information from adult women learners 25-44 in curriculum programs. Photographs will also be used. You may elect not to participate in the study at any time without unwarranted censure or repercussions. If you would like, you may leave now. I will give you informed consent to read, which outlines important information. The interview should take 60 minutes and will be recorded and transcribed. Is that ok? Do you have any questions? Would you sign the form, please? I want to remind you that this is voluntary. With your permission, these images will be used in an exhibition at the end of the semester in the Learning Resource Center to create conversation about how to help adult women on campus better.

Procedures

1. I will start a smart app to record and test it. Test: What name do you want to be called?
2. Do you have a smartphone?
3. Do you have any photos that reflect people, places, or things that support or hinder your college success on your phone or social media or that you would share with me?
4. Things to avoid include invasion of privacy, faces, identifiable images of children, or imagery that may be embarrassing. All the images you share need to be taken by you.
5. If images include faculty or students, I have a photo use consent form for them to sign.
6. Can you select 1-4 photos that are most meaningful of your college experience?
7. Can you caption the image?
8. Can you email them, or can I help you? Millikenm07@students.ecu.edu, or can you text them to 919-842-7658

9. You will maintain the original digital copy, but any image provided to the study may be published or displayed. Is that ok?
10. You will be given an alias to choose if you like, and all images will be assigned a number.
11. This is voluntary, and you can stop at any time.

Interview

1. Why did you decide to enroll at Pineland currently? What impacted your choice?
2. Do you have a picture to share? Can you tell me what is happening in this image?
3. How does this image reflect support or hindrance to your college experience? If no image: What supports or obstacles affect your college experience?
4. Why is this image meaningful to your college experience?
5. What has had the most significant effect on your success here?
6. Can you tell me if your college opportunities have increased or decreased?
7. What do you think about the programs or services available here?
8. What type of support or service can the campus offer you?
9. Do you think anything needs to change at Pineland? If so, how and why?
10. Has participating in this study changed your view of your college experience?
11. May I take your picture?

Additional probes as needed for clarification or elaboration.

1. Can you tell me more?
2. What does that mean?
3. Did you talk with someone?

APPENDIX I: PARTICIPANT REQUIREMENT FLYER

Participants Needed!

FOR A RESEARCH STUDY EXPLORING ADULT WOMEN LEARNER'S EXPERIENCE AT SCC

- Are you 25-44?
- Have you enrolled, completed or attempted one of the these classes:
 - ENG 111, ENG 112, BIO 168, CHM 092, CHM 151, MAT 110 or MAT 171
- Receive a \$25 Amazon Gift Card when all steps have been finished



TO PARTICIPATE, SCAN THE QR CODE



PARTICIPATION INVOLVES ONE CONFIDENTIAL INTERVIEW LASTING
60 MINUTES OR LESS IN-PERSON, BY TEXT, ONLINE, OR BY PHONE
AND SHARING 2-4 PHOTOS OF YOUR COLLEGE EXPERIENCE

MORE INFO

Michelle Milliken
mmilliken@sampsoncc.edu

APPENDIX J: FINAL STUDY INTREVIEW PROTOCOL

1. Tell me about yourself, what's a normal day look like?
 - a. Which part of your life is the most challenging & why?
 - b. Do you have children? Would you tell me about them?
 - c. Which part of your life is the most important to you & why, & does school effect that?
2. Do you have a picture of your family you could share with me?
 - a. Can you tell me about this image?
 - b. How it makes you feel?
 - c. Does this reflect a support or hindrance to your college experience and why?
3. Tell me about your college experience?
 - a. Is this your first time in college
 - b. Why here
 - c. Tell me where do you do your schoolwork
4. Do you have pictures of your college experience you could share with me?
 - a. Can you tell me about this image, how it makes you feel?
 - b. Is this meaningful to your college experience, why or why not?
 - c. Does this reflect a support or hindrance to your college experience and why?
5. **If no image:** What supports or obstacles affect your college experience?
6. Can you tell me if your college opportunities have increased or decreased?
7. Tell me about the programs or services available here?
 - a. Have you used any?
 - b. What type of support or service can the campus offer you?

8. Do you think anything needs to change here? If so, how & why?
9. Has participating in this study changed your view of your college experience?
10. Is there anything else you'd like to tell me?
11. May I take your picture?

Additional probes as needed for clarification or elaboration.

1. Can you tell me more?
2. What does that mean?
3. Did you talk with someone?

Can you email the pictures, or can I help you? Millikenm07@students.ecu.edu, or can you text them to 919-842-7658

APPENDIX K: POSTER FLYER ADVERTISEMENT



PHOTOVOICE EXHIBIT
IN PARTIAL FULFILLMENT OF
DOCTORAL DISSERTATION

*it's been a long
time coming*

Supporting Adult Women Learner's
Success in a Community College

MARCH 26 - 28, 2024

Learning Resource Center at
Sampson Community College

OPENING RECEPTION

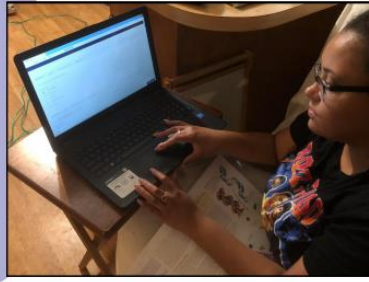
**March 26, 2024
4 - 6 PM**
All are welcome



Michelle B. Milliken
Director of Learning Resource Center
at Sampson Community College
2025 EdD Candidate,
East Carolina University

APPENDIX L: POSTER ARTIFACTS

I hate online classes. That picture I was doing the online class my first semester here. We were still in the pandemic.



I do wish there were more professors for certain classes. A bigger variety of professors that could teach the same class because you just don't connect with their teaching strategies.

My opportunities increased here because it's a well known school.

I took biology twice at the other school and here that last time. I got through it but it would have been a lot easier if it was in person. It was a lot of teaching yourself. You have to be very self-disciplined, read the material, and understand it yourself. You have to wait if you have a question. Read a PowerPoint, write it over in your own words and teach yourself. You're on your own.

I had to designate an area in my bedroom so I'm not sitting on the bed. So I don't veer off on my phone.



This shows I got through it [CNA]. It was very hard. I feel proud.

Balancing it all. Being a full-time student, a significant other, work, and trying to balance social life, it's just hard sometimes. You want to give 100% all the way around.

My college schedule wasn't working out with my school schedule and I can't do online classes. So I couldn't teach.

I graduated in 2022 with my Associates in Early Childhood Education. I went and got a job in the my career choice I graduated with for 2 years. I loved the job, and the kids, but it wasn't what I wanna do for the rest of my life.

I was studying for my nurse aide final exam. I literally went through the entire book to find exactly the answer I wanted to study. It was very stressful but I wanted to complete it that way [to] help me study better. On top of that I had other work like a 6 page paper for another class.

I wasn't able to focus and was behind at the beginning because my husband was in the hospital. And being an adult you have other duties it becomes a lot on one person. Trying to catch up, stay on top, working and school on top of it.

I'm a full time student with 12 credit hours, 3 online classes and chemistry in [person]. I work part time and also clean houses on the side. I have a husband. I'm a very active person as far as family, church, my niece and nephew.

I knew this was going to be a lot but actually knowing and physically being in the setting is two different things. I'm gonna sacrifice what I need to get through it.

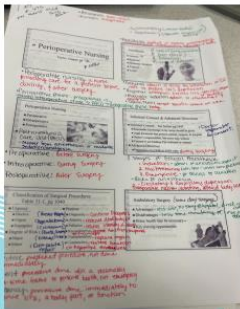
I came here after graduation for business management but it was definitely not what I wanted at all. So I quit and went into the work force. I put this on the back burner. I've been out of school 10 years. And I had to start my prerequisites all over again.



This study opened my eyes to knowing exactly what I actually do every day instead of just doing it. This made me feel good about myself, of what I do and I'm still pushing on. I feel better knowing I'm not the only one who does all this stuff because you get in the rut of your routine.

This is my second day of clinical. I was eager and excited to do hands on and physically learn how to do everything we have been taught in class. This is a support - it was something I needed, but it was more.

NA Final Exam Study Guide
the two phases of the heart? The two phases of the heart are the systolic (working phase) being the bottom number in a blood pressure reading and the diastolic (resting phase) being the top number in a blood pressure reading.
common changes due to aging with the cardiovascular system are the changes due to aging with the cardiovascular system are the blood pumps with less force, arteries narrow and lose elasticity, and the heart muscle thickens.
the cardiovascular system? What are disorders associated with the cardiovascular system? The disorders associated with it are coronary artery disease, stroke, peripheral arterial disease and aortic disease.
arteries, veins, arterioles and capillaries. The arteries are the vessels that distribute oxygen and blood to your entire body. The veins are the vessels that collect blood from your body and return it to the heart. The arterioles in the body are a small but important part of the cardiovascular system.



The biggest challenge is nursing school is no joke. The PowerPoints - that's been the challenge. You have to retain all that.

I basically study from 10 pm to 1, 2 in the morning. Sometimes I separate away from my family to study and to really focus.

I'm the oldest this semester in class. The younger students help me find the links and with logging in.

I'm a mom of three, my day involves getting up at 5:30, getting all three children ready. The bus gets there and then I take the other two to daycare. Being a mom, I think, is one of the hardest jobs that I've had. I attend school, or clinical, I get home, cook dinner, help my oldest with his homework.

I actually attended and tried to get into the nursing program in 2015. I have an associates already from 2014.

Before I started school I put myself down. I felt like I couldn't do it. I was in a dark place and going was a little nerve wracking. It was just a lot, all the clinical paperwork and everything expected from us. I went in doubting myself.

Sacrifice to benefit my family.

This picture is the most meaningful to my college story. I came out first semester knowing that I can do it. I was very proud of myself because I was accomplishing a lot. I was helping classmates. I felt good about myself.



All my nursing books, that has been a great support because I don't have only one thing to go off of, I have several things that can help me study.



My husband has been one of my biggest supporters. When I say I'm gonna fail this exam and he tells me, "Stop doubting yourself, you're very smart."

Every [staff] person over resources that students can use came into the first day of class and introduced themselves. Explained what they helped with and how we could contact them. That's how I found out about daycare assistance. I've been to other colleges that don't do that.

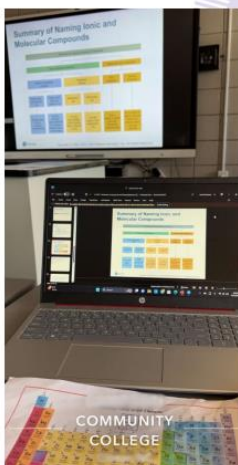
This encouraged me that I'm not alone, there's other people and we're going through similar situations. And I mean that means a lot...and it'll kind of change your mindset. I'm not walking through this path alone there's someone who may be even in a worse situation.

My son is three years old and he was diagnosed with Autism so balancing is definitely a challenge for me.



Thankfully I've got a good support system at home, my fiancé and my mother. I'm very blessed in that aspect.

I come to work for six hours and leave to go to class and as soon as I get out I come back to finish up my [work] hours. Then once I get everybody else situated but myself I stay up till about 12:00 in the morning. And then I play repeat everyday.



I prefer to have online classes because your schedule can be so hectic and online you can just kind of work around it. But fortunately my chemistry class is in person.

I hope my story gets out there and it will inspire others. It is never too late to go back, never.

I always sit in the front. I'm the oldest in class.

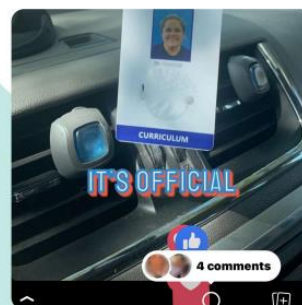
My teacher is 25 years old. He said in [his] chemistry class, "There was over 200 people. It's a lot more tight knit [here] and I can actually help you." There is more one-on-one help and I want that, it's easier to talk to someone about it compared to a university.

I have a purpose and a determination to get this done. I talked with my student success coach Jamie, about a game plan of what I need to do to get where I need to go.

I want a better life. I want to show my kids that it can be done, don't sit there and say "I can't."

I want to inspire my girls. I've told my girls everybody's path is completely different.

One thing I love about online classes is that you can really get ahead if you want to. I'm 2 weeks ahead. I do a lot of my school work at home while I'm sitting there washing or cooking something I don't have to sit and watch. I'll go get my laptop and do school work.

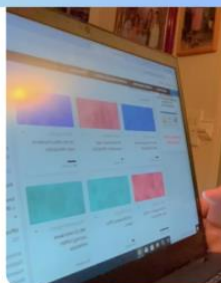


I feel like this school is definitely a great school for people that don't have a big career that they want, but **for mothers** that, didn't go straight to college after high school. This survey made me realize I really have had a great experience with this school.

The kids are playing outside and I'm on the laptop on the porch. It's been a change and challenging because **I feel guilty** I'm not spending as much time with my kids. But I feel like, the oldest started to understand that I'm doing something great. I'm still making that time to be a mom you know? It's not as much time, but it's **gonna be worth it** at the end. But even though my children only have me, they're seeing a strong mom.

I work full-time, and I'm a full-time mom.

My advisor is always available for me. Obviously giving me encouraging words, telling me, you could do more classes than you are. She's been there to encourage me throughout my journey.



Five classes and work-based learning - 18 credits, that's how many I needed to graduate, and I feel like I am capable. I've done that before.



My son sees me doing my schoolwork and he says he's hungry, [but] never mind mom I'll make a sandwich. [I think] when did you grow up, you know? But thank you for growing up, yeah and helping. Like a sad but happy moment at the same time.



There's a time and a period where I had lost focus, even on my personal life. I had a situation and she, [my advisor] encouraged me and she just pushed me to keep going whether it was a good grade or a bad grade.



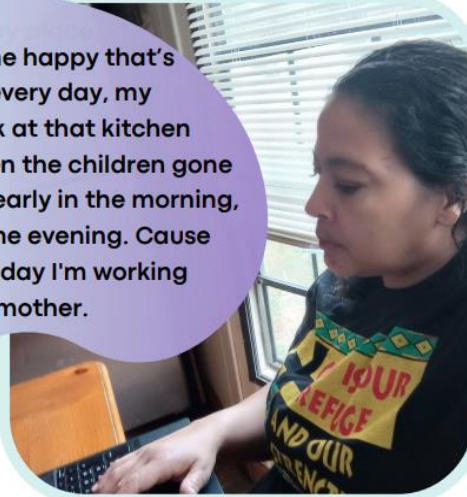
I'm trying to **better myself for the children.**

When they was smaller...

I didn't really land a job where I got good money & I could take them on vacation. And we, you know, still haven't paid all the bills. Yeah, that's why I want to go to school. To get me a better career so I could afford **better times, better memories.**

So I'm up by 6, I'm to the daycare by 7. I get the baby ready. And then I usually go home and start on my school work and do my errands. Then I'm work from 1 to 9.

It makes me happy that's what I do every day, my schoolwork at that kitchen table. When the children gone to school, early in the morning, or late in the evening. Cause during the day I'm working and I'm a mother.



I told them before I even started school, it's going to be very difficult not just for me but it's going to be difficult for you."

I knew I would have to miss all the sports, and many recognitions in school. I have to see them as pictures somebody else sends to me. It really hurts.

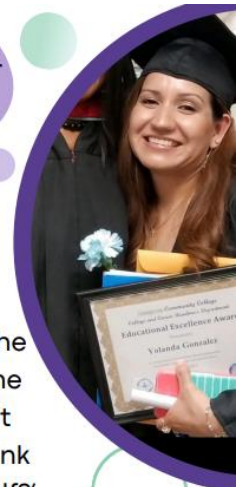


I have to educate myself to help economically as much as I can.

I was embarrassed because I was with teenagers and I was the oldest person in the room. Imagine, 30 something with like 14, 15.

Graduating from college and career readiness. And see what is this in my hand? It says Educational Excellence Award.

It is not just the pressure, but the language barrier. The GED instructor believed in me and encouraged me to not stop. The age makes me think 'why am I doing this to myself?'



I have a desire, I-I-I know that I can do something else. One day I stopped at this community college and ask what do I need to take my GED? They said you're ready. That is what this college did for me. It is a family college and they care about the community. It has been for **seven years my second home.**

I go pick up my girls and help them with homework when I haven't finished mine. Choice, you know?



This is after working night shift. I had to do paperwork until 2:00-3:00 a.m. and be in the clinical setting by 7:00 am for 12 hour shift.

Many times I-I am to **the breaking point** and I just go to the bathroom in my clinical setting and I cry. I feel like I-I-I just cant do it.

Before, I take one class at a time. Because I am a mother, I had to work, and I wasn't able to be a full-time student. Nursing is not a choice, **you have to be full-time**, 12 hour shifts for my clinicals. The biggest challenge is nursing. I left a secure job with benefits to start nursing from scratch.

